

Úvod do odborné terminologie

Distanční studijní text

René Kron

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UNIVERZITA**
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FAKULTA V OPAVĚ

- Obor:** 0232 Literatura a lingvistika, Class P – Language and Literature.
- Klíčová slova:** Terminology, Term, Terminologization, Determinologization Re-terminologization, Professional English, Word formation, Lexical relations, Specialized dictionaries Terminology databases, Terminology management, Terms and translation software, Term extraction.
- Anotace:** Kurz Odborná terminologie 1 je koncipován tak, aby účastníky seznámil s charakteristickými rysy anglického odborného jazyka, s konkrétním zaměřením na odborné termíny – tj. výrazy používané v rámci různých oborových názvosloví a profesní mluvy.

Stručně budou vysvětleny základní pojmy a koncepty a bude nastíněno jazykovědné pozadí anglické terminologie (zejména její morfologická charakteristika a různé slovtvorné procesy, jimiž termíny vznikají nebo do angličtiny pronikají). Studenti se dále seznámí s užitečnými slovníky a databázemi různých oborových terminologií (tištěnými i elektronickými) v jejich aktuálních verzích. V neposlední řadě bude pozornost věnována terminologii v překladatelské praxi, zejména problematice správy terminologie s využitím současných technologií pro podporu překladu (*Computer-Aided Translation*).

Autor: **PhDr. René Kron Ph.D.**

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ÚVODEM

Vážení studenti,

Vítejte v kurzu Úvod do odborné terminologie:

- Studijní opora je zde pro Vás, aby Vás seznámila s charakteristickými rysy anglického odborného jazyka s konkrétním zaměřením na výrazy používané v rámci oborových názvosloví a profesní mluvy.
- Pro kurz nejsou specifikována žádná prerekvizita.
- Seznámíte se s užitečnými slovníky a databázemi oborových terminologií (tištěnými i elektronickými) a vyzkoušíte si práci s nimi.
- **Pozornost bude věnována též terminologii v překladu, a to zejména ve vazbě na současné technologie CAT (*Computer-Aided Translation*).**

Distanční studijní text rovněž stručně nastínění jazykovědné pozadí anglické terminologie a různé procesy, jimiž termíny vznikají nebo do angličtiny pronikají. Vzhledem k obtížnosti samostudia obsahuje každá kapitola části na kontrolu porozumění a vybrané úkoly.

Přeji Vám hodně úspěchů při studiu!

RYCHLÝ NÁHLED STUDIJNÍ OPORY

Studijní opora k předmětu Úvod do terminologie poskytuje teoretický základ k lepšímu chápání problematiky tvorby odborného názvosloví a procesu na pozadí. Rovněž bude návaznost na tištěné a elektronické slovníky a databáze. Studenti se seznámí s překladatelskou problematikou s důrazem na technologie CAT (Computer Aided/Assisted Translation).

Studijní opora je rozdělena do 4 kapitol. Každá kapitola obsahuje několik podkapitol, které odpovídají jednotlivým položkám sylabu.

Cílem kurzu je poskytnout studentům dobré základní znalosti v dynamicky se rozvíjejících odvětvích moderní jazykovědy opírající se o současné technologie.

1 MAIN CONCEPTS AND DEFINITIONS



QUICK OVERVIEW

The first chapter explains the main concepts and notions related to terms and terminology, provides the necessary definitions, and places terminology within the wider context of linguistic study. It also deals with the general processes that underline terminology development and contribute to what we refer to as ‘terminology dynamics’.



AIMS

This chapter will

- Discuss role and function of terminology
 - Define key notions of terminology
 - Present where to find and use terms
 - Introduce terminology dynamics
-



KEYWORDS

Terminology, Terminology and lexicology, Terminology and lexicography, Concept, Definition, Term, Terminologization, Determinologization, Re-terminologization.

1.1 Terminology

It may not be immediately obvious but the word **terminology** refers to two different concepts, and as such it carries two different meanings:

DEFINITION – TERMINOLOGY



- According to the definition provided by the Oxford Dictionary, terminology is “the body of terms used with a particular technical application in a subject of study, profession, etc.” To put it in another way, the word ‘terminology’ collectively refers to a **class of words or phrases** (called **terms**) used in particular, usually professional contexts to convey specific meanings. We often add an adjective to specify the context of use, and thus we speak of ‘legal terminology’, ‘medical terminology’, ‘economic terminology’, ‘administrative terminology’, etc.

- ‘Terminology’ is also the name of the **field of study** or discipline that systematically deals with terms, their properties and use. It has close ties to other areas of applied linguistics.

1.1.1 TERMINOLOGY AND LEXICOLOGY

From the perspective of linguistics, terminology as a discipline is a part of **lexicology**. Both lexicology and terminology deal with the study of words.

However, the difference is that lexicology studies the entire inventory of words in a language, whereas terminology is only interested in terms, i.e. lexical units connected with a specialized field or professional activity.

A scholar whose work deals with the lexical component of language is called a **lexicologist**. A person who is involved in the study of terms is a **terminologist**.

1.1.2 TERMINOGRAPHY AND LEXICOGRAPHY

There is an analogous relation between **terminography** and **lexicography**. The latter refers to the practice of compiling, writing and editing dictionaries or other lexical resources (these activities are performed by or under the supervision of **lexicographers**), whereas terminography – also ‘applied terminology’ or ‘terminological lexicography’ – is a subfield that deals with the production (i.e. collection, processing and presentation) of terminology resources; a person involved in doing this is a **terminographer**.

A very specific area of lexicography is **metalexigraphy**, which is concerned with the description and/or scholarly criticism of existing dictionaries and dictionary-making practices.

The modern-day practice of both lexicography and terminography is highly reliant on the use of computer technology. Also, in line with the global rise in the use of the Internet, more and more products of lexicography and terminography take the form of digital resources and/or online services.

1.2 Notions of terminology

There are three key notions associated with terminology: **concept**, **definition** and **term** (refer to the diagram below to see how they are related).

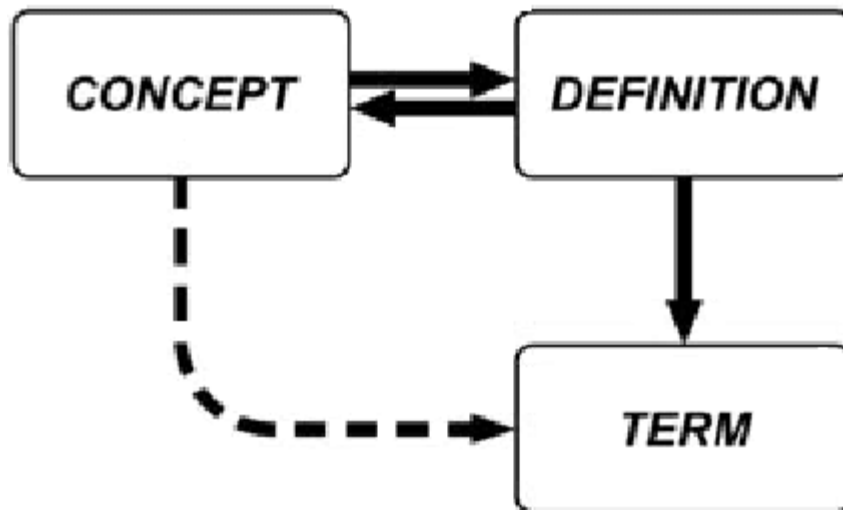


Fig. 1 – The key notions of terminology.

1.2.1 CONCEPT

Concepts are units of thought through which we organise our knowledge. They are abstract representations of the entities that make up the world around us. Concepts play an important role in all aspects of cognition.

We tend to understand concepts in relation to other concepts, rather than in isolation; in fact, human thought, knowledge and belief are based on a structured system of concepts.

1.2.2 DEFINITION

Existing concepts need to be defined. As the diagram above shows (see Fig. 1), the relation between a concept and a term is indirect; it is the definition that provides the link between them.

A terminological definition must be as detailed as is necessary in order to differentiate a concept (and its associated term) from other concepts and terms, and therefore to avoid ambiguity.

1.2.3 TERM

Terms are the linguistic designations assigned to concepts. Because terminology deals with specialised domains of knowledge, terms refer to the entities, properties, activities or relations that exist in a particular domain or field.

Behind each term there should be a clearly defined, unambiguous concept, and the choice of the term ought to reflect this concept effectively.

Also, as is the case with any other word, the form of the term should be in line with the lexical and morphological rules of the particular language – otherwise it may sound ‘strange’ or unnatural, and might be difficult to adopt.

1.3 Where do we find and use terms?

Words, the focus of lexicology, can typically be found in dictionaries, lexical databases, language corpora, wordlists and wordnets, where they are presented in a way that facilitates their practical use. An obvious area of use is translation but there are others: literature and creative writing (dictionaries of synonyms and antonyms), songwriting (rhyming dictionaries), study of language (corpora), spell-checking (wordlists), natural language processing (wordnets), etc.

On the other hand, terms are chiefly used in translation practice (in fact, the translation business is an important driving force behind many developments in terminography) and, of course, in field-specific communication, both spoken and written. Terms are collected and presented in **specialized dictionaries** or dedicated **terminology databases**. Apart from these resources we can come across terms in:

- field-specific texts (legal terms in a contract, technical terms in a manual, etc.);
- professional jargon (also referred to as “shop talk”);
- in-house terminology banks;
- termbases (also called “glossaries”) used by translation software.

Sometimes terms are not found outside of a particular, very narrow context. Certain companies or communities cherish and develop their own terms that will probably be unintelligible to most people – in some cases almost working as a “secret language” of sorts. The use of such terms has a strong social motivation in that they become part of the identity of the respective company or community. For example, in multi-level marketing (a form of direct selling in which existing distributors are encouraged to find new distributors, and are paid a percentage of their recruits’ sales) they use terms like *sponsor*, *downline*, *upline*, *leg* or *volume*, with very particular meanings. Such terms not only refer to company-specific concepts and serve in-house communication: they also represent an important part of the corporate culture.

1.4 Terminology dynamics

The world around us keeps changing and evolving. As it is the property of language to reflect reality, we tend to look for a ‘name’ or a ‘label’ for each new thing that is invented or otherwise comes into existence. Some specific fields, branches or professions develop very dynamically, and new terms need to be introduced continually to reflect the new concepts. At the same time, terms are dropped from use as once-specialized concepts become commonplace and lose their “technicality sense”.

The overall dynamics of terminology is influenced by three lexical processes: **terminologization**, **determinologization**, and **re-terminologization**.

1.4.1 TERMINOLOGIZATION

Terminologization is the process of creating specialist terms by taking general-meaning words already in existence (*cloud*: “a grey or white mass made of tiny drops of water that floats in the sky”) and giving them specialized meanings (*cloud*: “a network of computer servers on which data and software can be stored”). One particular field in which terminologization takes place very frequently is information technology (IT).

Terminologization is rarely a completely random process. Often there is a traceable relation between the original (general) word and the newly created term. The relation tends to be based on:

- a similarity in shape or form: *mouse*, *crane*, *window*
- an analogy of function: *desktop*, *folder*, *recycle bin*, *dialog*

1.4.2 DETERMINOLOGIZATION

The opposite process is called determinologization: a term leaves the boundaries of expert language, the “special meaning” is drained out of it, and the term is incorporated into general language as a widely known word.

Good examples are certain medical terms, which people commonly use without the complex clinical meanings ascribed to them by medical professionals. The example

sentence provided by the Oxford Advanced Learner's Dictionary, "There was a feeling of gloom and depression in the office when the news of the job cuts was announced," clearly demonstrates that the word *depression* is now used in a much more general sense. Similarly, many people complain of *insomnia* without being officially diagnosed with this condition: they merely want to say they find it hard to sleep.

As information technology becomes more and more available and widespread, original technical terms such as *laptop*, *tablet* or *monitor* have, too, been deprived of their specialist meanings and have become common words that everybody understands.

1.4.3 RE-TERMINOLOGIZATION

Re-terminologization is the transition of a term from one specific area of use to another. In other words, the respective lexical unit remains a term but is now used in a different context with a different meaning.

One notorious example is the term *virus* ("an infective agent, too small to be seen without a microscope"), which originally comes from biology and is now also used as a term in IT ("a computer program designed to cause faults or destroy data").



SUMMARY

This chapter deals with the area of terminology, its main concepts, definitions and key notions of terminology: concept, definition as well as term. It further provides guidance as to where to find and use terms. The terminology dynamics subchapter introduces and clarifies terminologization, determinologization and re-terminologization.

COMPREHENSION CHECK



1. What is the relation between *lexicology* and *terminology*?

2. Explain the fundamental notions associated with terminology: *concept*, *definition* and *term*.

3. Explain how the processes of *terminologization*, *determinologization* and *re-terminologization* influence the dynamics of terminology. Give specific examples.



ASSIGNMENT

Using a dictionary, compare the general vs. specific meaning of the following words:

- *folder, driver, widget* (IT)
- *bill, hearing, motion* (law)
- *casting, lock, spring* (tech.)

..

TAKE A BREAK



Now it is time to take a break, you have finished the first chapter.

2 THE LINGUISTIC ASPECTS OF TERMINOLOGY



QUICK OVERVIEW

This relatively extensive chapter deals with the linguistic properties of terms. We will present the key characteristics of “professional English” – a specific expert language or code used by English speakers in various professional contexts. We will also describe terms from the viewpoint of their morphological properties; focusing on various formal components and the meanings they contribute to the term they are part of. Further in the chapter we will discuss the main word-formation processes through which terms are created or otherwise enter the English language. Last but not least, we will cover various lexical relations that exist between terms.



AIMS

This chapter will

- Introduce professional English and its properties
 - Revise word formation processes
 - Discuss lexical relations in terminology
-



KEYWORDS

Professional English, Derivation, Compounding, Blending, Clipping, Conversion, Backformation, Coinage, Borrowing, Acronymy, Combined processes, Synonymy, Homonymy, Polysemy.

2.1 Professional English and its properties

In this study material we use “professional English” as an umbrella term referring to the specific expert language used by English speakers in various professional contexts. Therefore, this general term covers and subsumes what textbooks and dictionaries call “business English”, “technical English”, “medical English”, “academic English”, “English for IT”, etc.

As terminology plays an important role in professional or expert language and communication, we consider it quite logical to start this chapter with a brief overview of the linguistic properties of professional English. Its main characteristic features are the following:

- The actual choice of linguistic devices is strongly influenced by the general need for an **exact, concise** and mainly **impersonal** way of expression.
- The requirement to be highly exact leads to relatively **long sentences**. It is estimated that sentences in expert texts and communication tend to be 70% longer compared to general English.
- The sentence structure is often **complex** and **varied** in form.
- The predominantly impersonal nature of professional English underlies the fact that it has adopted grammatical means which suit this particular way of expression. **Impersonal structures** include, above all, nominal forms of verbs (the infinitive, the gerund, the present and past participles) and the passive.
- Words and phrases tend to have **literal meanings**. There is little room for figurative language.
- **Terms and term-like expressions** constitute a significant part of professional vocabulary. They carry a high degree of information.
- Relations between terms and other semantic parts of the sentence are described by **functional expressions** such as prepositions and conjunctions (for example: *upon, after, besides, moreover, furthermore, aside from, in addition to, together with, in conformity with, as a result, providing*) or adverbs (*again, however, nevertheless, thus, therefore, alternatively, etc.*).
- Professional English also employs its own ‘phraseology’ in the form of various **set phrases** (*on no account, give account of, take into account, come into existence, come to a conclusion, come to light, etc.*).

- Frequent are phrases expressing the **opinion or attitude** of the author of the text towards the argument(s) he/she is making (*beyond any doubt, of course, to be sure, there is every indication that, we strongly believe that, it is safe to assume that, etc.*).
- Also very common are words and phrases expressing the **degree of probability** (*possibly, probably, presumably, in all probability, perhaps, apparently, unlikely, it is assumed that, it is widely believed that, etc.*).
- There is a relative **lack of personal pronouns**, and especially of the first-person singular “I”.

2.2 Terms and morphology

In this section we will discuss terms from the viewpoint of morphology. We will have a look at the formal properties of terms, and see how **morphemes** – minimal units that carry meaning in language – work and contribute to the construction of terminological meaning.

Especially for translators, being able to see the individual components that make up terms can facilitate the interpretation and understanding of the highly specific meanings found in professional English texts.

2.2.1 WHAT DOES A TERM LOOK LIKE?

In the English language, a term typically takes the form of:

- a **noun**, which is either:

a simple noun: *contract* (law), *bronchitis* (med.)

a compound: *backbencher* (polit.), *boric acid* (chem.)

a derivation: *antivirus* (IT), *revocation* (law)

a blend: *Unicode*, *codec* (both IT)

- a **nominal phrase**: *Doppler shift* (phys.), *word processor* (IT), *safety valve* (tech.)
- an **adjectival phrase**: *Official Journal* (EU admin.), *relative clause* (ling.),
protective layer (tech.)
- a **complex phrase**: *selective serotonin re-uptake inhibitor* (med.)
- a **verb**: *to log in* (IT), *to unfriend* (social media), *to countersign* (law, admin.)
- an **acronym**: *AIDS* (med.), *BOM* (tech.)
- an **initialism**: *EU* (polit.), *MRI* (med.)

2.2.2 TERMS AND THEIR MORPHOLOGICAL COMPONENTS

Many terms are – or contain – derived words, i.e. words that have been formed using a root or a stem (a “base word” consisting of at least one **lexical morpheme**) in combination with an affix (a **derivational morpheme**). The most common affix types in English are **prefixes** (added before the base word) and **suffixes** (added after the base word).

The core meaning of the term is usually carried by its lexical morpheme(s), while derivational morphemes (i.e. prefixes and suffixes) provide additional semantic features to further specify or modify the meaning. Take the following adjective as an example:

BI-POL-AR

Here, the lexical morpheme *pol* (representing the root of the word) indicates that the word incorporates “a pole” as its core semantic notion. The derivational morpheme *-ar* (the suffix) adds the meaning “having or related to”, and turns the word into an adjective. Finally, the derivational morpheme *bi-* (the prefix) adds the meaning “two”, thus arriving at the final meaning of the word: “having or related to two poles”.

Prefixes

The table below lists a few common prefixes that often appear as morphological components in English terms:

Prefix	Meaning	Example term(s)
a(n)-	“without”, “non-“	<i>anorganic, amorphous</i>
anti-	“against”	<i>antifreeze, anticlockwise</i>
astro-	“star”, “space”	<i>astronaut, astronomy, astronavigation</i>
bi-	“two”, “twice”	<i>bipolar, bilateral</i>
cent(i)-	“hundred”	<i>centipede, centigrade</i>

counter- contra-	“back”, “against”	<i>counterbalance, counteraction</i> <i>contraception, contraflow</i>
de-	“to lower”, “to deteriorate”	<i>decomposition, degradation</i>
deca-	“ten”	<i>decathlon, decalitre</i>
demi- hemi- semi-	“half”	<i>demigod, demi-pension</i> <i>hemisphere, hemistich</i> <i>semicircular, semiconductor</i>
dia-	“through”, “between”, “across”	<i>diagonal, diameter</i>
endo-	“inside”	<i>endocrinology, endogenous</i>
equi-	“the same”	<i>equivalence, equidistant</i>
exo-	“outside”	<i>exogamy, exogenous</i>
geo-	“earth”	<i>geography, geodesic</i>
gyro- / gyra-	“rotation”, “circle”	<i>gyrocompass, gyration</i>
hecto-	“hundred”	<i>hectolitre, hectogram</i>
hetero-	“different”	<i>heterogeneous, heteromorphic</i>
hyper-	“over”, “too many”	<i>hypercharge, hypersensitive</i>
hypo-	“less”, “under”	<i>hypodermic, hypoplasia</i>

inter-	“between”, “mutually”	<i>interplanetary, Internet</i>
iso- homo-	“the same”, “identical”	<i>isochromatic, isogonal</i> <i>homogeneous, homophone</i>
macro-	“big”	<i>macroeconomic, macrostructure</i>
mal-	“bad”	<i>malfunction, malignant</i>
mono-	“one”, “only”	<i>monochromatic, monorail</i>
neo-	“new”	<i>neologism, neonatal</i>
octa- / octo-	“eight”	<i>octagon, octosyllabic</i>
omni-	“all”, “everywhere”	<i>omnipresence, omnidirectional</i>
over-	“too”	<i>overload, oversaturation</i>
peri-	“around”	<i>perimeter, peripheral</i>
poly-	“many”	<i>polygon, polycarbonate</i>
proto-	“first”	<i>protozoa, prototype</i>
re-	“again”	<i>reaction, recycle</i>
super-	“above”	<i>supersonic, superstructure</i>
tele-	“distance”	<i>telemetry, telescope</i>

thermo-	“temperature”	<i>thermometer, thermoplastic</i>
trans-	“across”	<i>transverse, transfer</i>
uni-	“one”	<i>unicycle, unicameral</i>
vice-	“in place of”	<i>vice-president, vice-governor</i>

Suffixes

The table below lists a few common suffixes that often appear as morphological components in English terms:

Suffix	Meaning / function	Example term(s)
-able / -ible	possibility, feasibility	<i>machinable, collapsible</i>
-age	process, activity	<i>montage, assemblage</i>
-al	forms nouns and adjectives	<i>removal, mechanical</i>
-ance / -ancy -ence / -ency	form nouns that express property or state	<i>conductance, constancy</i> <i>presence, valency</i>
-ant	forms nouns and adjectives	<i>lubricant, resistant</i>

-ary / -ery -ory	place connected with a particular job or activity	<i>library, infirmary, winery, refinery</i> <i>observatory, factory</i>
-ation	forms nouns that express activity or state	<i>refrigeration, formation</i>
-ce / -cy	forms nouns	<i>valence, sequence</i> <i>accuracy, supremacy</i>
-(c)ule	“small”	<i>minuscule, molecule, capsule</i>
-ectomy	“chirurgical removal”	<i>colectomy, vasectomy</i>
-er / -or -ian, -ist -ier / -yer	form names of professions	<i>welder, director</i> <i>librarian, machinist</i> <i>cashier, lawyer</i>
-esce	forms verbs that express change of state	<i>incandesce, effervesce</i>
-gram	“record”	<i>oscillogram, diagram</i>
-graph	“recording or diagnostic device”	<i>barograph, cardiograph</i>
-ic / -ical -ial	form adjectives expressing properties	<i>magnetic, surgical</i> <i>spatial, commercial</i>
-icle	adds the meaning “small” to	<i>particle, cubicle</i>

	nouns	
-ics	form names of sciences	<i>physics, economics</i>
-logy		<i>biology, metrology</i>
-ing	forms nouns	<i>tubing, bolting, lining</i>
-ity / -ility	form nouns expressing properties	<i>reactivity, capability</i>
-ivity		<i>conductivity</i>
-less	“without”	<i>wireless, contactless</i>
-let	adds the meaning “small” to nouns	<i>droplet, applet</i>
-meter	“measuring device”	<i>thermometer, altimeter</i>
-oid	“similar or resembling”	<i>hyperboloid, planetoid</i>
-proof	“resistant”	<i>waterproof, laserproof</i>
-scope	“optical indicator”	<i>oscilloscope, spectroscope</i>
-sion	forms names expressing property or activity	<i>torsion, conversion</i>
-y	forms nouns and adjectives	<i>symmetry, rusty</i>

2.3 Terms and word formation

There are many different ways in which words can enter a language. The constant evolution of word stock (i.e. the introduction of new words, and the re-use of old words with new meanings) is a sign of vitality and creativity as languages are shaped by the changing world and by the needs of their users.

We have already mentioned in the previous text that we need to create new terms in order to be able to name the new inventions people come up with. Therefore, in this section we will discuss terms from the viewpoint of word formation.



DEFINITION – WORD FORMATION

Word formation is a collective term given to the various processes by which new words are created. Many languages employ similar kinds of word-formation processes, but they differ in the degree to which these processes are typical of the particular language. For example, inflected languages such as Czech or Polish tend to form most new words through derivation (i.e. adding prefixes and suffixes to word stems), whereas non-inflected languages (Japanese, Turkish etc.) prefer compounding, conversion or other processes.

We will now have a look at the individual word-formation processes that are typical of the English language, with a specific focus on the formation of terms:

2.3.1 DERIVATION

We have seen in chapter 2.2 above that the morphological structure of English lends itself quite well to the use of derivation – the adding of prefixes and suffixes – in the formation of terms. In fact, derivation is (together with compounding) the most common word formation process in English.

Numerous examples of derived terms have been presented in section 2.2.2.

2.3.2 COMPOUNDING

DEFINITION - COMPOUNDING



Compounding is the joining of two or more separate lexical units (base words) to produce a new word form. This word-formation process is very common in English.

As far as the form is concerned, we traditionally distinguish three types of compound in English:

- **Closed compounds** are expressions in which the individual components are written together, with no space between them. Closed compounds are typically made up of two words (*fingerprint, laserdisc, textbook, archway, motherboard, joystick, hatchback, trolleybus*) but certain term-like adverbs and prepositions used in formal situations – for example, in legal or administrative texts – consist of three base words (*hereinafter, heretofore, notwithstanding*).

- **Hyphenated compounds** use a hyphen as a dividing character between two or more base words. Examples of terms that are hyphenated compounds include: *singer-songwriter, plug-in, right-of-centre, left-handedness, four-by-four, editor-in-chief*, etc.

- **Open compounds** are by far the most common. In these expressions all the base words are written separately: *expansion card, boarding pass, deputy chairman, nuclear power plant, coefficient of friction, right of way, emergency core cooling system*, etc.

Many complex terms that are open compounds actually consist of a combination of the three BledCtypes above. Examples include: *decision-making process, computer-aided translation, do-it-yourself kit, self-powered motherboard*, etc.

2.3.3 BLENDING



DEFINITION – BLENDING

This word-formation process involves combining two lexical forms by taking a part of one word (usually the beginning) and joining it to a part of another word. Due to this, the meaning of blends is less obvious at first sight compared to compounds. Well-known blend examples include *smog* (*smoke* + *fog*), *brunch* (*breakfast* + *lunch*), *motel* (*motor* + *hotel*) and *cyborg* (*cybernetic* + *organism*).

One terminology area in which blends are common is information technology:

Original words	Resulting term
<i>binary</i> + <i>digit</i>	<i>Bit</i>
<i>modulator</i> + <i>demodulator</i>	<i>Modem</i>
<i>coder</i> + <i>decoder</i>	<i>codec</i>
<i>emotion</i> + <i>icon</i>	<i>emoticon</i>
<i>Internet</i> + <i>etiquette</i>	<i>netiquette</i>
<i>spamming</i> + <i>robot</i>	<i>spambot</i>
<i>web</i> + <i>log</i>	<i>blog</i>
<i>video</i> + <i>blog</i>	<i>vlog</i>

wireless + <i>fidelity</i>	<i>Wi-Fi</i>
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2.3.4 CLIPPING

DEFINITION – CLIPPING



Clipping is a process in which a word consisting of more than one syllable is reduced to a shorter form. Usually, it is relatively long words – that is, words consisting of at least two or three syllables – that are clipped. This is not done out of laziness: users generally tend to express themselves as economically as possible, and because languages employ a certain degree of redundancy, users can omit parts of long compounds or multi-word terms without diminishing their meanings.

As clipped words in general tend to indicate informal use of language (although many such words are now perceived as neutral), clippings are often found in professional slang rather than as regular terms.

Examples of clippings used in professional English:

<i>ad</i>	advertisement
<i>lab</i>	laboratory
<i>fridge</i>	refrigerator
<i>condo</i>	condominium
<i>app</i>	software application

<i>rep</i>	representative
<i>specs</i>	specifications
<i>vet</i>	veterinary surgeon
<i>memo</i>	memorandum
<i>temp</i>	temporary employee
<i>gas</i>	gasoline
<i>maths</i>	mathematics

2.3.5 CONVERSION



DEFINITION – CONVERSION

Conversion is a type of word formation that does not involve any morphological means. The process of conversion is based on the change in the function of a word, rather than in the form. Typically, lexical units created through conversion have changed their part of speech while retaining the same (or minimally changed) word form. In other words, during conversion verbs turn into nouns or adjectives, nouns turn into verbs, and so on.

Examples of English terms formed via conversion:

Part-of-speech change	Original word	Resulting term
noun to verb	a bottle a chair a lecture a position	to <i>bottle</i> a product to <i>chair</i> a meeting to <i>lecture</i> at a university to <i>position</i> a product in the market
verb to noun	to print out to take over to spy	a <i>printout</i> a <i>takeover</i> a <i>spy</i>
verb to adjective	to stand up to see through	<i>stand-up</i> comedy a <i>see-through</i> fabric

2.3.6 BACKFORMATION


DEFINITION – BACKFORMATION

This word-formation process, too, involves a change in the part of speech but compared to conversion (see above), a reduction of the word form takes place (typically, a suffix is removed from the original word). Backformation usually produces verbs that are formed from nouns.

Examples of English terms that are the result of backformation:

Original word	Resulting term
television	to <i>televise</i>
euthanasia	to <i>euthanise / euthanize</i>
liaison	to <i>liaise</i>
bulldozer	to <i>bulldoze</i>
electrocution	to <i>electrocute</i>
donation	to <i>donate</i>

2.3.7 COINAGE

DEFINITION – COINAGE

Just like new things are constantly invented, so are new words. The process of inventing a completely new word is referred to as *coinage*, and the same term is applied to the result of that process. Coinages often enter the language as trade names for commercial products, and over time they become general words referring to any version or variation of the original product. (They also usually drop the initial capital letter in the process.)

Coinages tend to be nouns but we also have examples of newly coined verbs.

Examples of coinages that are used as terms: *aspirin, nylon, vaseline, kleenex, teflon, xerox, sellotape, quark; to google, to photoshop.*

Coinages based on proper names (i.e. names of people or places) are called *eponyms*. Example English terms that are eponyms include: *hoover, fahrenheit, diesel, Marxist, platonic, Petri dish, Alzheimer's Disease, etc.*

2.3.8 BORROWING

In order to extend the word stock of a language we can turn to other languages and simply incorporate words already existing there. This practice is referred to as “borrowing”; a word taken over from another language is called a loanword or a borrowing.

Today, English is a very influential language, so many modern terms that come from English-speaking countries end up as loanwords in other languages. Sometimes they even become preferred over existing “native” terms; for example, the suggested Czech term *magnetoskop* (“a video player or recorder”) never really caught on in language practice and was soon replaced by a borrowing from English, *video*.

On the other hand, English has, too, been quite keen on lexical borrowings. It is estimated that nearly 30% of the entire English word stock is of French origin, and

roughly the same proportion of vocabulary comes from Latin. As far as terminology is concerned, the major sources of term borrowings are Latin, French and Greek but other languages have contributed, too. The table below gives some examples:

Language of origin	Borrowed terms
Arabic	<i>alcohol, atlas, fakir, fatwa</i>
Czech	<i>robot, howitzer (from houfnice via the German Haubitze)</i>
Dutch	<i>buoy, commodore, iceberg, narwhal, trigger</i>
French	<i>automobile, calorie, district, fabric, juxtaposition, oxygen</i>
German	<i>flugelhorn, glockenspiel, lithography, snorkel, umlaut, zeitgeist</i>
Greek	<i>aorta, colophon, diabetes, chaos, pneumonia, stigma, trauma</i>
Italian	<i>a cappella, cantata, gabion, loggia, motto, novella, opera, zebra</i>
Japanese	<i>anime, emoji, futon, Ikebana, karate, tofu, tsunami</i>
Latin	<i>accumulation, condominium, denture, fungus, mutation, phonetic</i>
Sanskrit	<i>avatar, guru, nirvana, yoga</i>
Spanish	<i>armadillo, Chicano, hurricane, mulatto, oregano, tobacco</i>

2.3.9 ACRONYMY

DEFINITION – ACRONYMY



The last word-formation process we will cover is acronymy – the creation of new words formed from the initial letters of other words. Acronymy is a type of abbreviation.

Linguists typically distinguish two kinds of words that are the result of this process: **acronyms** (which are pronounced as single words: *UNESCO* [juneskəʊ]) and **initialisms** (pronounced as individual letters: *DVD* [di: vi: di:]). However, there is apparently some overlap between the two categories, as there are words that people pronounce in both ways: *UFO* ([ju:fəʊ] or [ju: ef əʊ]), *VAT* ([vi: ei ti:] or [væt]), etc.

In terminology, acronyms and initialisms are very common because many specialist terms are long open compounds (see 2.3.2 above). Acronymy provides a practical way to facilitate their use in both written and spoken communication.

Certain terms formed through acronymy have become so common that we no longer feel their acronymic origin: *laser* (*light amplification by stimulated emission of radiation*), *scuba* (*self-contained underwater breathing apparatus*), etc.

Examples of common English terms that are acronyms or initialisms are given in the table below:

Acronyms	
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organisation
Radar	radio detection and ranging

OPEC	Organization of Petroleum Exporting Countries
UNPROFOR	United Nations Protection Force
AIDS	Acquired Immune Deficiency Syndrome
AWOL	absent without official leave
GIF	graphics interchange format
PIN	personal identification number
Initialisms	
FBI	Federal Bureau of Investigation
CIA	Central Intelligence Agency
MRI	Magnetic Resonance Imaging
HIV	Human Immunodeficiency Virus
HTML	hyper-text markup language
BBC	British Broadcasting Corporation
CNN	Cable News Network
OEM	original equipment manufacturer
RSI	Repetitive Strain Injury

2.3.10 COMBINED PROCESSES

More than one process can often be involved in the formation of a new word. From a synchronic viewpoint we can identify a combination of word-formation processes in terms like the following:

robotic: borrowing + derivation

HIV-positive: acronymy + compounding

cellphone: clipping + compounding

2.4 Lexical relations in terminology

Words do not exist as mere “containers of meaning”: they can also have relationships with each other. The meaning of a word can be described not only in terms of its component semantic features but also in terms of its relationship to other words.

Early on in this study material (see chapter 1.2) we mentioned that terms should be unambiguous and that, ideally, one term should refer to one clearly defined concept. However, this requirement is difficult to meet in actual language practice. Just like other words, terms become involved in various lexical relations such as synonymy, homonymy and polysemy. This complicates their use to a certain degree, but such is the nature and reality of language.

2.4.1 SYNONYMY BETWEEN TERMS

In various fields of terminology we come across different words and expressions with apparently the same or a very similar meaning. These work as **synonymous terms** (or **terminological synonyms**), thus effectively breaching the requirement that one concept should be referred to by one (and only one) term.

Synonymy – the existence of different word forms sharing the same underlying concept – occurs in terminologies for various reasons:

- **Geographical:** the same entity is called differently in various countries where the same language is spoken; for instance, *lift* and *bonnet* in British English, which have their corresponding American English counterparts, *elevator* and *hood*.
- **Social:** the same concept has acquired a new name due to changes in the society. For example, the terms air hostess, chairman and policewoman now co-exist with their respective gender-neutral synonyms flight attendant, chairperson and police officer.
- **Ideological:** the same concept has acquired two (or more) different names due to political or ideological reasons. One famous example is the word cosmonaut (used in the former Eastern Bloc), which is in reality no different from an astronaut (a term used in the Western world). The reason for the existence of two different terms is purely political here. The recent addition of taikonaut (“an astronaut in the Chinese space programme”) has a similar motivation.
- **Preferential:** the same concept is called differently among different professional user groups because they prefer or have devised their own term. Examples include IT-related terms used across different computer platforms and operating systems: dialog box vs. message window, control vs. widget (“a user interface element”), checkbox vs. tickbox, context menu vs. pop-up menu, etc.
- **Marketing:** the same concept has acquired another name because there is a marketing and/or media “push” behind it. Indeed, new synonyms often originate from product names and trademarks. Examples: sticky tape vs. Sellotape, exercise bike vs. Exercycle, sticky note vs. Post-it, etc.

2.4.2 TERMINOLOGICAL HOMONYMY AND POLYSEMY

Terms are standards set to avoid ambiguity and misunderstanding in a specific profession or field of activity. However, practice has shown that quite often, one and the same term can have different meanings, depending on the context. While in general language this is a positive sign (indicating that the language is alive and rich), terminological **homonymy** and **polysemy** – the existence of terms with multiple meanings – can lead to confusion.

The distinction between polysemy and homonymy is often quite vague, but the generally accepted definition is that **polysemous words** carry meanings that are related in origin, whereas the individual meanings of **homonyms** are not related to each other. In dictionaries, polysemous words tend to be treated within a single entry while homonyms form separate dictionary entries.

As an example we will take a look at the term “lock”. As the table below shows, the term acquires different meanings in different fields of use (and has different

corresponding translations in Czech). However, the meanings are mutually related – they all involve holding something in place and blocking it there. They share the same origin, so “lock” is a **polysemous term** (not a homonym):

Field of use	Definition	Czech translation
sport	“A hold that prevents an opponent from Moving (in wrestling or martial arts).”	<i>zámek</i>
water transport	“A short section of a canal or river with gates at each end which can be opened or closed to change the water level, used for raising and lowering boats.”	<i>zdymadlo, plavební komora</i>
car technology	“The maximum extent to which the front wheels of a vehicle can be turned left or right.”	<i>rejď</i>

Another example is the verb “to clear”. As the definitions below indicate, the meanings assigned to the verb in various specialist contexts are not related to each other. Therefore, “to clear” is a **homonymous term**:

Field of use	Definition	Czech translation
international transport	“To give or receive official permission to transport goods across the border.”	<i>proclít, celně odbavit</i>
sport	“To kick or hit a ball or a puck away from the area near your own goal.”	<i>dostat míč/ puk z obranného pásma</i>

business	“To make net profit.”	<i>vydělat, získat (čistý zisk)</i>
business	“To sell cheaply to get rid of stock.”	<i>levně rozprodat, zbavit se, dát do výprodeje</i>



SUMMARY

This chapter deals with professional English and its properties. Substantial amount of time is devoted to terms and morphology with stress on the following word formation processes: derivation, compounding, blending, clipping, conversion, backformation, coinage, borrowing, acronyms and their combinations. Lexical relations in terminology are described in the final subchapter.

COMPREHENSION CHECK



1. What is *professional English*, in what contexts is it used, and what are its typical linguistic properties?

2. Which *morphological components* take part in forming English terms? Give specific examples.

3. Which *word-formation processes* contribute to extending the repertoire of English terms? Give specific examples.

4. Explain the possible reasons for the existence of *terminological synonymy*. Give specific examples.

5. Explain the difference between *homonymous* and *polysemous terms*. Give specific examples.



ASSIGNMENT

Using the information presented in section 2.2.2 in the study material, analyse the morphological structure of the following five terms. Identify prefixes and suffixes, explain their meaning and/or function, and translate the term into Czech. (The particular field in which the term is used is given in brackets.)

contractor (business)

homogamy (botany)

geologist (science)

monosyllabic (linguistics)

managerial (business)

TAKE A BREAK



Now you can take a well-deserved break!

3 TERMINOLOGY RESOURCES

QUICK OVERVIEW



The third chapter leaves the realm of theory and looks at the practical side of things. We will give an overview of various terminology resources that a translator may find useful in his/her daily work. We will recommend a number of specialized dictionaries, both print and electronic, that cover terminology in various subject domains (economics and finance, law, politics, etc.). We will also mention a number of publicly available online terminology databases that can serve as resources complementary to dictionaries.

AIMS



This chapter will

- Discuss specialized dictionaries
 - Introduce terminology databases
-

KEYWORDS



Print dictionaries, Electronic dictionaries, Terminology databases, Distributed collaboration, TechTerms, Microsoft Language Portal, MediLexicon, IATE, ECHA-term, Abbreviations.com.

When translating specialist texts, **terminological accuracy** is an important aspect of the quality of translation. The knowledge of terminology used in a particular field, and the ability to find, verify and correctly use terms to fit the needs of specialist communication, are important prerequisites that a professional translator has to meet.

In reality, very few translators are trained experts in the field in which they specialize: for instance, a person translating chemistry-related texts is not required to have studied chemistry at university level. But they have to be able to effectively find the correct terms for the particular context. This is where various **terminology resources** enter the scene and become indispensable tools.

We mentioned in section 1.3 above that for practical purposes, terms are often collected in **specialized dictionaries** and **terminology databases**. In this chapter we will have a look at some of these resources.

3.1 Specialized dictionaries

These dictionaries contain the terminology related to a particular subject field or discipline, often trying to cover as much of the relevant terminology as possible. Specialized dictionaries tend to cover one subject field, although multi-field dictionaries do exist as well.

Print dictionaries come in traditional book form, whereas **electronic dictionaries** take the form of software applications, e-books (in formats such as PDF or ePub) or online services. Electronic dictionaries allow faster searching, and they also tend to be more up-to-date: it is much easier (as well as cheaper) for publishers to update and extend them because the additional cost of printing and binding does not apply.

Another possible classification is based on the language(s) used:

- **Monolingual dictionaries** present terms through their definitions in a single language. They can be useful when the translator wants to actually understand the term he/she is translating, rather than just find the corresponding equivalent in a target language.
- **Translating dictionaries** (bilingual or multi-lingual) contain terms and their corresponding translations in one or more target languages.

Some dictionaries combine both approaches; typically, the dictionary is designed as a translating dictionary but definitions or explanations of terms are also provided for reference.

The table below presents a non-exhaustive list of existing specialized translating dictionaries (both print and electronic) that cover Czech and English terminology used in various fields and professions:

3.1.1 PRINT DICTIONARIES

Subject domain	Title	Author(s)	Publisher and date
	<i>Velký ekonomický slovník anglicko-český / česko-anglický</i>	various authors	Fraus, 2007
	<i>Anglicko-český ekonomický slovník</i>	J. H. Adam	Leda, 2003
economics and finance	<i>Anglicko-český + Česko-anglický odborný slovník z oblasti ekonomické, obchodní a finanční (two volumes)</i>	Milena Bočánková et al.	Linde, 2008 (4th ed.)
	<i>Anglicko-český ekonomický výkladový slovník</i>	Jiří Elman	Sobotáles, 2004

	<i>Ekonomický slovník s odborným výkladem česky a anglicky</i>	Helena Fialová, Jan Fiala	Aplus, 2009
	<i>Česko-anglický slovník pojišťovnictví</i>	various authors	Grada, 2007
law	<i>Anglicko-český právní slovník</i>	Jana Oherová et al.	Linde, 2010
	<i>Anglicko-český právní slovník</i>	Marta Chromá	Leda, 2010 (3rd ed.)
	<i>Česko-anglický právní slovník s vysvětlivkami</i>	Marta Chromá	Leda, 2010 (3rd ed.)
politics and adminis- tration	<i>Anglicko-český a česko-anglický slovník Evropské unie</i>	Milena Bočánková, Miroslav Kalina	Ekopress, 2005
	<i>Velký slovník zkratk</i>	Jiří Elman	East West

	<i>Evropské unie</i>		Publ., 2000
science and techno- logy	<i>Anglicko-český + Česko-anglický technický slovník (two volumes)</i>	Jiří Elman, Václav Michalíček	Sobotáles, 2003 (2nd ed.)
	<i>Praktický technický slovník anglicko-český / česko-anglický</i>	various authors	Fraus, 2007
	<i>Anglický frazeologický slovník pro techniky</i>	Josef Nevrlý	Computer Press, 2008
	<i>Česko-anglický slovník stavební</i>	Jiří Vedral	JTP, 2006
	<i>Velký chemický slovník anglicko-český a česko-anglický (two volumes)</i>	Jaromír Mindl, Josef Panchartek	VŠCHT, 2012 (3rd ed.)

	<i>Anglicko-český / česko-anglický multioborový slovník z oblasti vědy, techniky a ekonomiky</i>	various authors	Computer Press, 2011
	<i>Anglicko-český slovník. Automobily, silniční vozidla, výroba, prodej, servis, opravárenství.</i>	Ivo Machačka, Filip Machačka	Systemconsult, 2009
	<i>Gumárenský anglicko-český slovník a český výkladový slovník s anglickými ekvivalenty</i>	Vratislav Ducháček, Anežka Lengálová	ČSPCH, 2004
	<i>Anglicko-český a česko-anglický slovník životního prostředí a udržitelného rozvoje</i>	Jarmila Hájková, Ivan Rynda et al.	SFŽP, 2010
medicine	<i>Tematický česko-anglický a anglicko-český soudnělékařský slovník / Thematic Czech-English and English-Czech Dictionary of Forensic Medicine</i>	Michal Beran, Petra Dohnalová, Klára Neureutterová	Karolinum, 2018

	<i>Česko-anglická roślinolékařská terminologie</i>	Václav Kúdela et al.	Academia, 2008
sport	<i>Anglicko-český / německo-český / česko-německo-anglický slovník sportovního tréninku</i>	Eva Pokorná, Róbert Kandráč	Grada, 2011

3.1.2 ELECTRONIC DICTIONARIES

Subject domain	Title	Author(s)	Publisher and date
economics and finance	<i>Lexicon 7 Ekonomický slovník</i>	various authors	Lingea, 2019
	<i>Anglicko-český ekonomický slovník</i>	Jiří Elman	Leda, 2005

law	<i>Lexicon 5</i> <i>Anglický právní slovník</i>	various authors	Lingea, 2008
politics and adminis- tration	<i>Euro angličtina.</i> <i>Elektronický anglicko-český</i> <i>a česko-anglický</i> <i>slovník pro pracovníky</i> <i>státní správy.</i>	Jana Dyčková	NOK + Lingea, 2011
	<i>Výkladový slovník</i> <i>migrační terminologie /</i> <i>Glossary on Migration</i>	various authors	IOM, 2014 (e-book / PDF)
science and technology	<i>Lexicon 7</i> <i>Anglický technický slovník</i>	various authors	Lingea, 2019
	<i>Lexicon 7</i> <i>Anglický zemědělský</i> <i>a přírodovědný slovník</i>	Josef R. Beneš	Lingea, 2019
	<i>Anglicko-český /</i> <i>česko-anglický</i> <i>technický slovník</i>	various authors	TZ-one, 2013 (e-book / PDF)

	<i>Slovník analytické chemie anglicko-český a česko-anglický</i>	Pavel Matějka et al.	VŠCHT, 2005 (online)
	<i>Angličtina na internetu: anglicko-český slovník</i>	Jozef Petro	Halloenglish.cz, 2015 (e-book / PDF)
various fields	<i>Nový odborný slovník Millennium 8 anglicko-český, francouzsko-český, německo-český, rusko-český</i>	various authors	Commercial Service K+K, 2014

3.2 Terminology databases

With the more widespread use of the Internet in the past two decades, a lot of lexicographic activity has moved towards web-based technologies. These technologies have enabled the emergence of new lexicographic tools that would be difficult to implement in the traditional book form. In many ways, **online terminology databases** provide a better answer to the dynamic development in specialist fields; above all:

- They are easier to maintain, extend and review.
- They are based on **distributed collaboration**, which means that many people can work on them at the same time and regardless of their location (whereas traditional dictionaries usually only have small, locally-based teams behind them).
- They make use of state-of-the-art database technologies, allowing **sophisticated ways to look up terms** including query-based searching, fulltext searching and in-context searching.
- It is easy to design them as **multi-lingual** (i.e. one term is provided in parallel translation into several languages), whereas in traditional dictionary-making the bilingual approach is still prevalent.
- They are accessed through a standard web browser, which is an environment most people of today are familiar with.

Compared to an electronic dictionary, the structure of an entry in a terminology database tends to be simpler, and contains less linguistic information.

Below is an overview of several useful online terminology databases that are freely available for public use:

3.2.1 TECHTERMS

A monolingual online database of computer and Internet terms. Launched in 2005, the database currently contains about 1500 technical terms with easy-to-understand definitions. Term can be looked up via the web interface as well as from mobile apps for the iOS and Android operating systems.

The goal of TechTerms is simple — they want to make technical terms easy to understand. Instead of using high-level terminology, TechTerms definitions are written in simple everyday language. They also believe that while definitions of computer terms are helpful, simple explanations of terms with examples are even better. Therefore, most definitions on TechTerms.com include real-life examples of how the term is used.

Some terms in the TechTerms Computer Dictionary are commonly used and require little technical knowledge to understand. Others are less common and may have definitions that contain more advanced terminology. For this reason, each definition includes a "Tech Factor" rating from 1 to 10. Terms with low tech factors are basic terms that are well known, while terms with high tech factors are more advanced and are not used as often.

The database is accessible from www.techterms.com

The screenshot shows the TechTerms website interface. At the top, there is a green navigation bar with the TechTerms logo, a search bar, and links for 'Browse', 'Quizzes', and 'Help'. The main heading reads 'TechTerms The Computer Dictionary'. Below this is a large search input field containing the text 'e.g. ASP, PHP, C#, Java' and a 'Search' button. Underneath the search bar, it says 'Look up definitions of computer and Internet terms. [Advanced Search](#)'. The page is divided into several sections: 'Term of the Day' for April 4, 2020, featuring the term 'Backside Bus' with a definition and a 'Read More' link; 'Today's Quiz Question' with the question 'QuarkXPress is what type of program?'; a 'Subscribe to TechTerms' section with an email address field and a 'Submit' button; and 'Recently Added Terms' with a list starting with '1. EOL'. There are also buttons for downloading the app on the App Store and Google Play.

Fig.2 – Techterms

3.2.2 MICROSOFT LANGUAGE PORTAL

A multilingual online database of standard computer technology terms used across Microsoft products. Due to the significant role of Microsoft in the world of computing, the database can also serve as a general IT terminology bank. The terms are available in almost 100 languages.

The database is accessible from www.microsoft.com/Language.

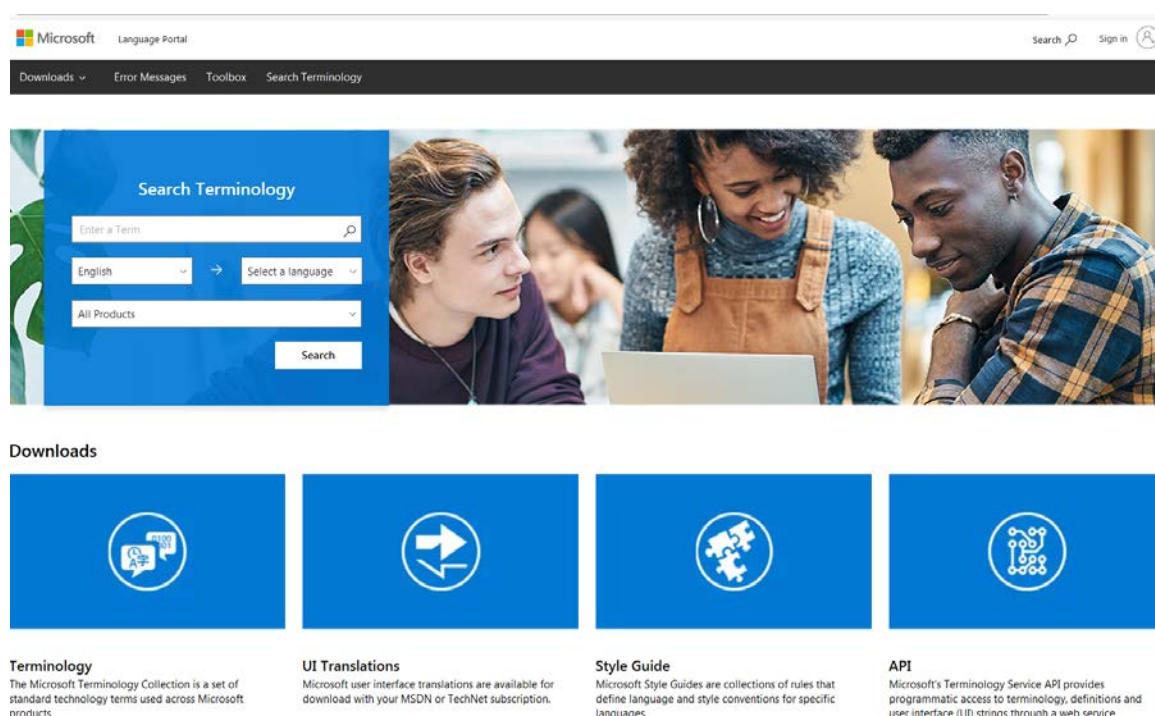


Fig.3 – Microsoft Language Portal

It has several sections.

Terminology - can be used to develop localized versions of applications that integrate with Microsoft products. It can also be used to integrate Microsoft terminology into other terminology collections or serve as a base IT glossary for language development in the nearly 100 languages available. Terminology is provided in .tbx format, an industry standard for terminology exchange.

UI Translations - Translations of the user interface text (UI strings) for Microsoft products and services are available free from Visual Studio Dev Essentials. Each language is provided as a .zip file containing multiple individual products in .csv format.

Style Guide – is further divided into Localization Style Guides and English Style Guides.

Localization Style Guides: Microsoft Style Guides are collections of rules that define language and style conventions for specific languages. These rules usually include general localization guidelines, information on language style and usage in technical publications, and information on market - specific data formats.

English Style Guide: The English Style Guide (Microsoft Writing Style Guide) provides essential guidance for developers and content creators who design English-language apps, documentation, marketing, and reference material for and about Microsoft products.

API - The Microsoft Terminology Service API allows a user to programmatically access the terminology, definitions and user interface (UI) strings available on the Language Portal through a web service. This enables users to write apps that call the data from the portal and display it on their website or translate their Windows Store or Windows Phone apps.

One can also use the Terminology Service API for:

- Dictionary-style terminology, definition, and translation lookups on your site or from within your app.
- Integration with your localization or content authoring system for dynamic translation and localization.
- Combining with Microsoft Translator to translate your content using lookups to get the right Microsoft terminology and machine translation for the content.
- Suggestions for Microsoft Terminology in community translation of content and wikis.

This content accessed by the Terminology Service API is the same as one will find on the Language Portal search page and includes terminology and English definitions, in addition to the actual product user interface translations, such as "Save to phone", "Pin to Start", "Log on", and other common UI terms in major Microsoft products.

Supported Languages

The languages supported include all the languages you will find on the Language Portal and currently enable translation from US English to any of the supported languages and/or any of the supported language to US English.

Locales and Languages

Note that language codes currently include both the language and the country/region, for example "en-us." Neutral locales, such as "en" only, are not currently offered. However, some of the language and locale combinations reflect terminology and UI strings from products that are distributed in multiple countries where a language is spoken and can be regarded as "neutral" flavors of the language, in particular:

English (en-us)

French (fr-fr)

Arabic (ar-sa)

German (de-de)

Dutch (nl-nl)

Spanish (es-es)

3.2.3 MEDILEXICON

A monolingual online database of terms and abbreviations from the fields of medicine, pharmacy, biotechnology, agrochemicals, healthcare and more. Currently it contains more than 100,000 terms as well as over 230,000 acronyms and initialisms.

MediLexicon also provides a comprehensive medical dictionary service for visitors, allowing them to quickly look up meanings for medical words and phrases.

The database is accessible from www.medilexicon.com.

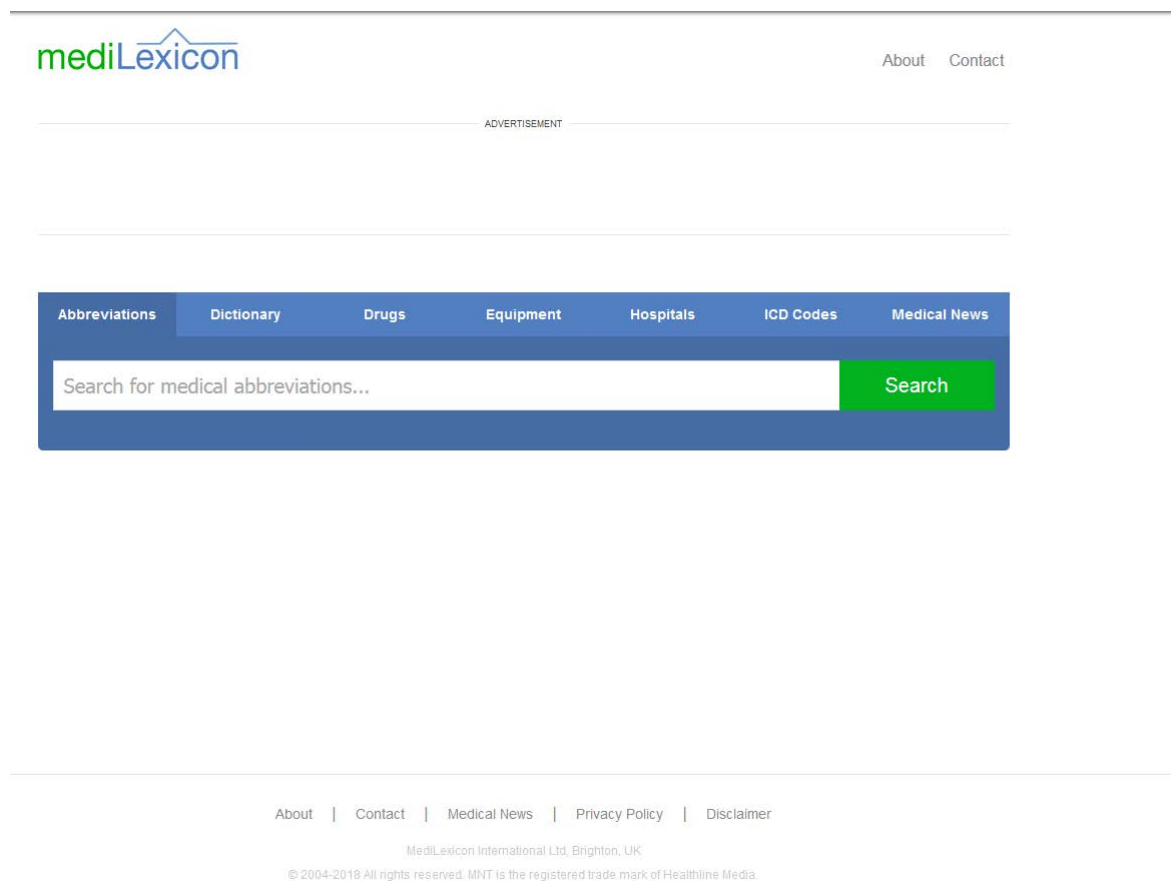


Fig.4 – Medilexicon

3.2.4 IATE (INTERACTIVE TERMINOLOGY FOR EUROPE)

European Union's multilingual terminology database maintained by the Translation Centre for the Bodies of the European Union / Centre de traduction des organes de l'Union européenne. The project was launched in 1999 with the aim of providing a web-based infrastructure for all EU terminology resources, enhancing the availability and standardization of the information. IATE has incorporated several terminology databases that European institutions and agencies used in the past. Terms in IATE are available in 25 languages.

The database is accessible from iate.europa.eu.

Searches last week	Number of terms
1 259 732	7 963 991
Number of entries	Modifications last week
972 613	36 994
New terms last week	Terms deleted last week
5 558	2 587

About IATE

IATE (Interactive Terminology for Europe) is the EU's terminology database. It has been used in the EU institutions and agencies since summer 2004 for the collection, dissemination and management of EU-specific terminology. The project was launched in 1999 with the aim of providing a web-based infrastructure for all EU terminology resources, enhancing the availability and standardisation of the information.

[About IATE](#)
[Download IATE](#)
[IATE brochure](#)

Fig. 5 – IATE

IATE ('Interactive Terminology for Europe') is the EU's terminology database. It has been used in the EU institutions and agencies since summer 2004 for the collection, dissemination and management of EU-specific terminology. The project partners are:

- European Parliament (IATE data labelled as EP),
- Council of the European Union (IATE data labelled as Council),
- European Commission (IATE data labelled as COM),
- European Court of Justice (IATE data labelled as CJUE),
- European Central Bank (IATE data labelled as ECB),
- European Court of Auditors (IATE data labelled as ECA),
- European Economic and Social Committee (IATE data labelled as EESC/CoR),
- European Committee of the Regions (IATE data labelled as EESC/CoR),
- European Investment Bank (IATE data labelled as EIB), and
- Translation Centre for the Bodies of the European Union (IATE data labelled as CdT)

The project was launched in 1999 with the objective of providing a web-based infrastructure for all EU terminology resources, enhancing the availability and standardisation of the information. The following legacy databases were imported into IATE:

- Eurodicautom (Commission),
- TIS (Council),
- Euterpe (EP),
- Euroterms (Translation Centre),
- CDCTERM (Court of Auditors)

The current new version of IATE was released on 7 November 2018 following a full rebuild of the system with state-of-the-art technologies, the latest software development standards, best practices on usability and accessibility, and a new look and feel. Numerous improvements and new functionalities are now available to internal and public users, and the EU interinstitutional terminology database will continue to evolve in the coming months and years to meet the needs and wishes of EU linguists and IATE users in general.

3.2.5 ECHA-TERM

European Union's multilingual database of terms from the field of chemistry, and especially chemical substances. The terms are available in 23 languages.

The database is accessible from echa-term.echa.europa.eu.

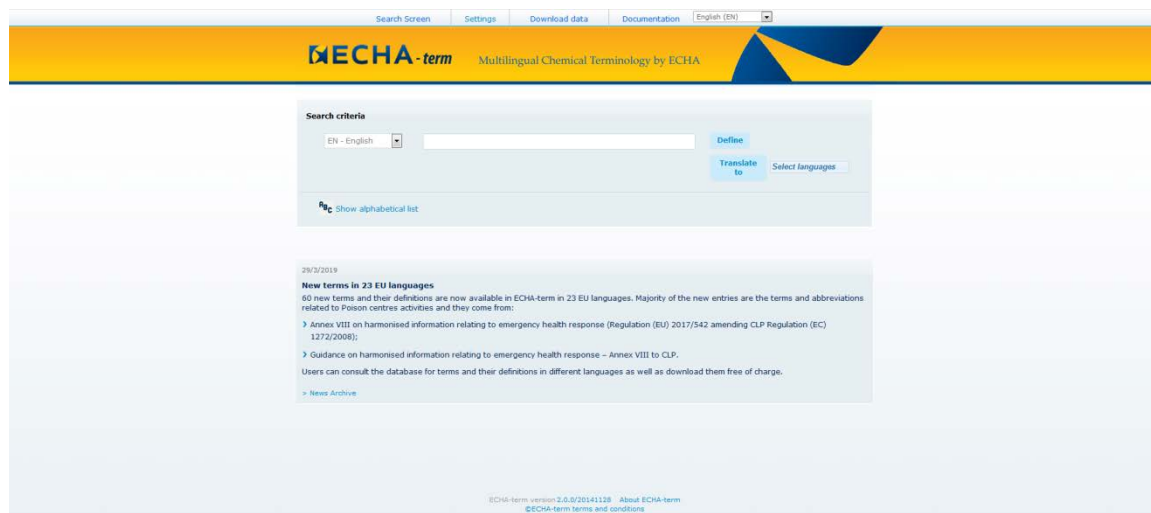


Fig. 6 – ECHA

ECHA is the driving force among regulatory authorities in implementing the EU's groundbreaking chemicals legislation for the benefit of human health and the environment as well as for innovation and competitiveness. ECHA helps companies to comply with the legislation, advances the safe use of chemicals, provides information on chemicals and addresses chemicals of concern.

The ECHA-term terminology database was conceived as a dynamic database to be updated constantly by experts in the field and linguists. Feedback from users will also be taken into account as an additional validation mechanism.

ECHA-term contains terminology from:

- REACH Regulation
- CLP Regulation (terms, hazard and precautionary statements)
- ECHA Guidance documents (terms and descriptors)

- GHS hazard pictograms
- Substances of Very High Concern
- Biocidal Products Regulation

A total of 1,200 multilingual entries are now available in 22 EU languages, plus the main REACH terms in Croatian. The terminology will be enlarged and updated continuously during the coming years.

3.2.6 ABBREVIATIONS.COM

A multilingual online database of acronyms, abbreviations and initialisms. The database contains hundreds of thousands of entries across 22 languages, organized by a large variety of categories from computing and the Internet to governmental, medicine and business.

The database is accessible from www.abbreviations.com.

The screenshot shows the homepage of Abbreviations.com. At the top, there is a search bar with the text "Search for an abbreviation or acronym..." and a "SEARCH" button. To the right of the search bar are radio buttons for "Abbreviation -> Term", "Term -> Abbreviation", and "Word in Term". Below the search bar is a navigation menu with letters A through Z, and buttons for "NEW" and "RANDOM".

The main content area is divided into several sections:

- Welcome to Abbreviations.com:** A introductory text stating that the site is the world's largest and most comprehensive directory and search engine for acronyms, abbreviations, and initialisms. It mentions that the site holds hundreds of thousands of entries organized by a large variety of categories from computing and the Web to governmental, medicine and business, and is maintained and expanded by a large community of passionate editors.
- AS FEATURED IN:** Logos for The New York Times, WRITER'S DIGEST, ALA American Library Association, USA TODAY, and New York Public Library.
- Hot:** A section titled "Our most popular acronyms" with a list of acronyms and their counts:

PPE	586
IYKYK	311
TWITTER	259
CEO	202
CDC	186
- Fresh:** A section titled "Our latest abbreviations" with a list of acronyms and their meanings:

SIMT	Single Isocenter Multi Target
SIMT	Sheffield Industrial Museum Trust
SIMT	Study on International Money Transfers
- Academic & Science:** Amateur Radio, Architecture, Biology, Chemistry, Degrees, Electronics, Geology, IEEE, Mathematics, Mechanics, Meteorology, Ocean Science, Physics, Universities »
- Business & Finance:** Accounting, Firms, International Business, Mortgage, NASDAQ Symbols, NYSE Symbols, Occupations & Positions, Professional Organizations, Stock Exchange, Tax »
- Community:** Conferences, Educational, Famous, Film Censorship, Genealogy, Housing, Law, Media, Museums, Music, Non-Profit Organizations, Religion, Schools, Sports, Unions »
- Computing:** Assembly, Databases, DOS Commands, Drivers, File Extensions, General, Hardware, Java, Networking, Security, Software, Telecom, Texting, Unix Commands »
- Governmental:** FBI, FDA, Military, NASA, Police, State & Local, Suppliers, Transportation, UN, US Gov. »
- Internet:** ASCII, Blogs, Chat, Domain Names, Emoticons, HTTP, MIME, Twitter, Wannas, Websites »
- Miscellaneous:**
- Regional:**

Fig.8 – Abbreviations.com

An extensive collection of hundreds of thousands of acronyms, abbreviations, and initialisms, Abbreviations.com is neatly arranged by broad areas (e.g. Medical, Internet, International, Community). Each area is further broken down into more specific, browsable categories such as Veterinary, Emoticons, or Non-Profit. The "International" area is multilingual, featuring hundreds of entries in Spanish, German, French, and other languages. Users can contribute abbreviations as well as look them up. In addition to browsing, search options are also available: word to abbreviation, abbreviation to word, word in definition, There is also a metasearch option that seems deliver term use in Amazon and Google.

SUMMARY



This chapter was dealing with terminology from a more practical view. We introduced a variety of printed and electronic dictionaries and also examined a number of online sources for terminology. As of this writing, there is a buzz going around about closing down Medilexicon.



ASSIGNMENT

Visit the [university library](#), and use the [library catalogue](#) to find out which of these resources are available to you.

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4 TERMINOLOGY MANAGEMENT



QUICK OVERVIEW

The closing chapter deals with the theory and practice of terminology management, focusing specifically on Computer-Aided Translation tools and technologies. We will see how terminology is handled by translation software and how collections of terms can be exchanged between various programs. We will also present a number of tools for efficient terminology management, and introduce term extraction as a way to streamline the creation of term collections.



AIMS

This chapter will

- Discuss terminology management and its tools
 - Introduce terms and translation software
-



KEYWORDS

Computer – Aided Translation, Termbases, TBX file format, SDL MultiTerm, TermStar, Cloud computing, Distributed access, Term extraction, TermoStat, Synchro Term, Vocab Grabber

4.1 What is terminology management?

As terminology collections grow bigger, and especially when more people work on them, the need for some kind of organization or system arises as a prerequisite for further development. If left unmanaged, terminology can easily become inconsistent or confusing. This may have very serious consequences in certain high-risk fields such as medicine, military or law.

DEFINITION – TERMINOLOGY MANAGEMENT



Terminology management is a set of activities that ensure systematic collection, development, storage, reviewing, updating and distribution of terminology data. Nowadays, terminology is best managed with the help of dedicated software.

4.2 Terms and translation software

We mentioned at the beginning of the previous chapter that terminological accuracy is an important aspect of the quality of translation. We also suggested that the translator is not required to *know* a particular term, but that he/she needs to be able to *find* the correct term and *verify* its usability in a particular context. How can computer technology help tackle this task?

The field of **Computer-Aided Translation** (CAT) has brought various types of technology and software that make the translation process faster and easier. Because terminology is at the core of translation work, tools have naturally been devised for terminology management and referencing. In fact, one of the central concepts of CAT software is a module that caters for terminology needs. Regardless of the actual implementation, such a module will:

- help you manage electronic term collections (referred to as **termbases** or **glossaries**);
- monitor the currently translated text and compare it against a selected termbase in real time;
- automatically suggest and/or insert the respective translation if the source text contains a term that is stored in the termbase;
- support using several termbases simultaneously for reference;
- allow the online sharing of termbases among a team of translators;
- allow adding new terms on an as-you-go basis;
- provide features for basic terminology organisation and management (adding, modifying and deleting terms);
- cooperate with dedicated terminology management software if more sophisticated features are needed.

4.2.1 TERMBASE

A termbase is a bilingual or multilingual electronic database of terms used by CAT software. It contains specific pairings of source and target terms, and optionally also associated metadata (such as comments, context notes or usage examples).

Freelance translators tend to use termbases as their personal databases of terminology. These usually take the form of bilingual glossaries which the translator builds up by manually entering source and target term pairings as he/she proceeds from one translation job to another. This process often takes many years, so termbases become a valued resource that is part of the translator's know-how. Therefore, termbases are rarely shared with other freelancers (who represent competition in the market), unless they cooperate as part of a small team.

Personal termbases are rarely reviewed by a trained terminologist, so the translator himself/herself is fully responsible for what comes in. Terms are not added according to a rigorous system imposed from above, which can potentially lead to problems such as term duplication or competing translations. Also, personal termbases are seldom annotated with metadata (apart from occasional notes on term usage) because the time spent on comprehensive annotation rarely pays off, considering the nature of freelance translation work.

As today's computer technology is very fast even on consumer level, freelancers now often prefer to collect all terms in a single, "catch-all" termbase, rather than keep separate termbases for individual fields or clients. (This used to be common practice in previous decades when searching through large data collections represented a bottleneck.)

On the other hand, termbases used by big corporations and institutions are managed quite differently. First of all, they tend to have large teams behind them, which means that the term collections grow faster and bigger. To keep them focused, organised and consistent, they undergo regular review and maintenance. Typically, terms need to be approved by a person in charge before (or soon after) they enter the database, which minimizes the risk of error and inconsistency. This is really important: as corporate termbases are meant to be shared by the company's many departments and branch offices, errors can have much greater consequences compared to freelancer use.

Large corporations and institutions often operate on an international scale, so it makes every sense to design their termbases as multilingual. This means that the company or institution can store its entire stock of terminology across all supported languages in one place.

Corporations and institutions also tend to maintain several dedicated termbases organised by field, industry or product range because keeping one large termbase for everything would be too impractical, considering the amount of data involved.

4.2.2 THE TBX FILE FORMAT

Over the years, various CAT solution providers have introduced their own file formats to store termbase data. In order to simplify exchange of terms between CAT programs and ensure a certain level of compatibility, the TBX file format (short for TermBase eXchange) was published in 2008 as an **international standard**.

TBX is an open format based on the widely-used XML markup language. It was devised as a standard for representing and exchanging information about terms, words and other lexical data. The main purpose of TBX is to ensure that your data can be used in different software applications. All modern CAT programs, free or commercial, support TBX along with their own formats.

TBX is a plain-text, human-readable format that can be viewed in any text editor. The listing below shows one termbase entry taken from a TBX file. We will now have a look at the structure of the entry:

```
<termEntry id="10234_34">
  <langSet xml:lang="en-US">
    <descripGrp>
      <descrip type="definition">An absolute (machine) address
specifying a physical location in memory.</descrip>
    </descripGrp>
    <ntig>
      <termGrp>
        <term id="34">absolute address</term>
        <termNote type="partOfSpeech">Noun</termNote>
      </termGrp>
    </ntig>
  </langSet>
```



```

<langSet xml:lang="fr-fr">
  <ntig>
    <termGrp>
      <term id="39">adresse absolue</term>
      <termNote type="partOfSpeech">Noun</termNote>
    </termGrp>
  </ntig>
</langSet>
</termEntry>

```

Confusing as it may look at the first sight, it is actually very easy to read. The *termEntry* element introduces a new termbase entry. The *id* attribute that goes with this element carries a numeric identifier under which the entry is stored in the termbase. The languages in which the term is provided (in our particular example, English and French) are set in the *langSet* elements.

The term itself is stored in the *term* element; we can see that our entry stores the English term “absolute address” together with its French equivalent, “adresse absolue”. Any descriptions that go with the term must be enclosed within a *descripGrp* (description group) element. Note that our term has been accompanied with its English definition, “An absolute (machine) address specifying a physical location in memory”, while the French definition is not provided.

Because they are stored as plain text, TBX files can be edited manually in a text editor such as NotePad. However, this is rarely done because large termbase listings can be quite intimidating to work with. Instead, dedicated software tools are preferred for termbase management.

4.3 Terminology management tools

In today's globalised world, properly managed terminology can represent an invaluable asset and a competitive advantage for companies that operate on an international level. Therefore, most terminology management solutions are provided as commercial products.

From the viewpoint of technology, current terminology management tools come in one of the following three forms:

- **standalone software applications:** they are installed and run from your computer's hard-drive like any other programs;
- **integrated tools:** they are installed as components of a comprehensive translation solution (a "CAT suite");
- **web-based services:** they are provided as online applications that run inside a web browser.

Certain tools are offered in more than one form simultaneously, in order to match user preference and to ensure the widest possible installed base. Typically, integrated terminology management tools are also sold as standalone programs so that they can be used by people who only need a terminology management solution and do not want to pay for a full-fledged CAT suite.

4.3.1 SDL MULTITERM

Launched in 1990 and now published by the company SDL, MultiTerm represents an industry standard in terminology management. The program can be used by translators and terminologists as a standalone application, or it can be integrated with the company's flagship SDL Trados Studio translation suite. Both MultiTerm and Trados Studio run on Microsoft Windows, which is the only operating system officially supported by SDL.

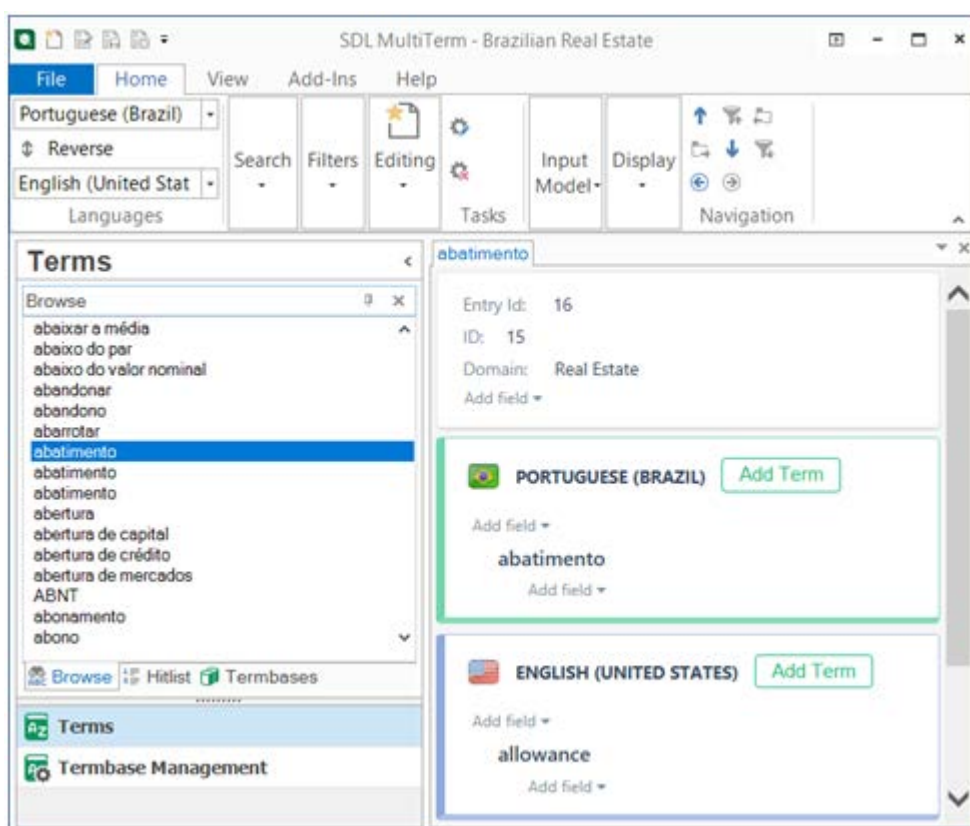


Fig. 9 – SDL MultiTerm

The image above displays the main program window of SDL MultiTerm in which a bilingual termbase is being edited. The termbase contains terms in Portuguese and English that relate to real estate (as the “Domain” field shows).

More information on SDL MultiTerm can be found on the product website:
<https://www.sdltrados.com/products/multiterm-desktop> :

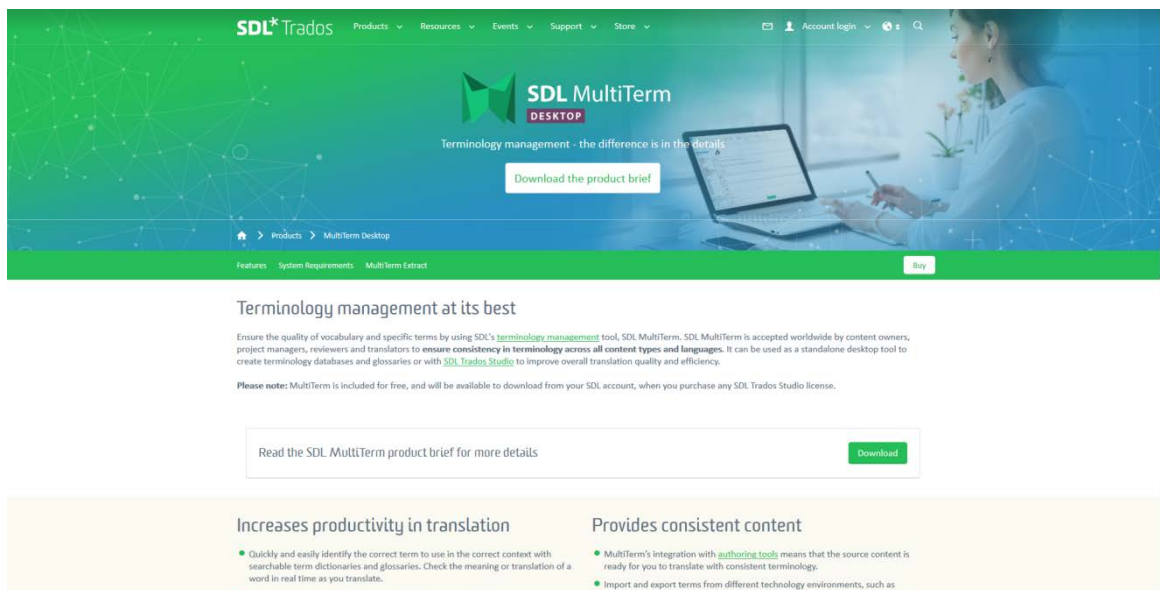


Fig.10 – SDL MultiTerm website

4.3.1 TERMSTAR

TermStar (published by the company STAR AG) is another well-established terminology management solution that comes both as a standalone application and as an integral part of a complete CAT suite, Transit. With the help of another product sold by the company, WebTerm, it is possible to access, manage and share TermStar databases online.

More information on TermStar can be found on the product website: <https://www.star-group.net/en/products/terminology-management.html>:

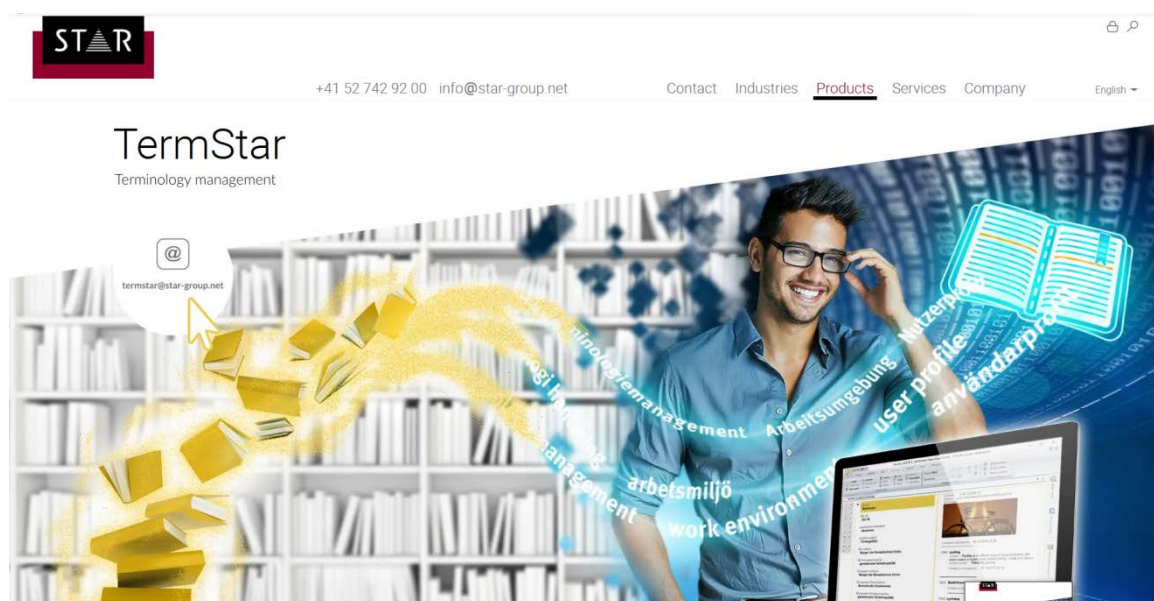


Fig. 11 – TermStar website

TermStar offers the following:

- Clear global communication thanks to consistent company wording
- Company-wide terminology pool
- Numerous interfaces for terminology extraction, transfer, and use
- Flexible adaptation to company-specific terminology processes
- Support of ontologies (RDF Triples) for machine translation and AI applications (e.g. voice assistance, NLG, NLU)
- Flexible licensing models (on-site, floating, time-limited, IaaS, SaaS)
- Worldwide support organization (first-, second- and third-level)
- Individually configurable user interface, views, and dictionary layouts
- Comprehensive data model with freely configurable values lists, entry verifications, and filter functions
- Simple integration of multimedia files
- Secure consolidation and merging of terminology databases thanks to complex import and synchronization functions
- Term suggestions on the fly
- Dynamic highlighting of disallowed terms
- Morphological support for over 80 languages and language variants
- Dynamic usage examples through dynamic linking
- Ability to add and update terminology quickly and use it immediately

4.3.2 ONLINE SOLUTIONS

With the wider availability of broadband Internet connection and online database services, an increasing number of web-based terminology management solutions have cropped up in the past decade. They follow the current trend of **cloud computing**, where classic computer programs are being replaced by applications running inside a web browser, and data is stored in secured data centres rather than saved locally.

This brings the undisputable advantages of **distributed access** (termbanks can be used and managed from any place that has Internet connection) and automatic **data back-up** (all termbase data is regularly backed up by the provider of the service, and can easily be retrieved in case of hardware failure).

Below is a brief list of web-based terminology management solutions. Most of these are commercial; in fact, their price and licensing scheme often make them suitable for global corporate users rather than individual freelance translators. However, some of these solutions provide a scaled-down free version for personal use:

a) TermWeb:

<https://interverbumtech.com/products-services/termweb>

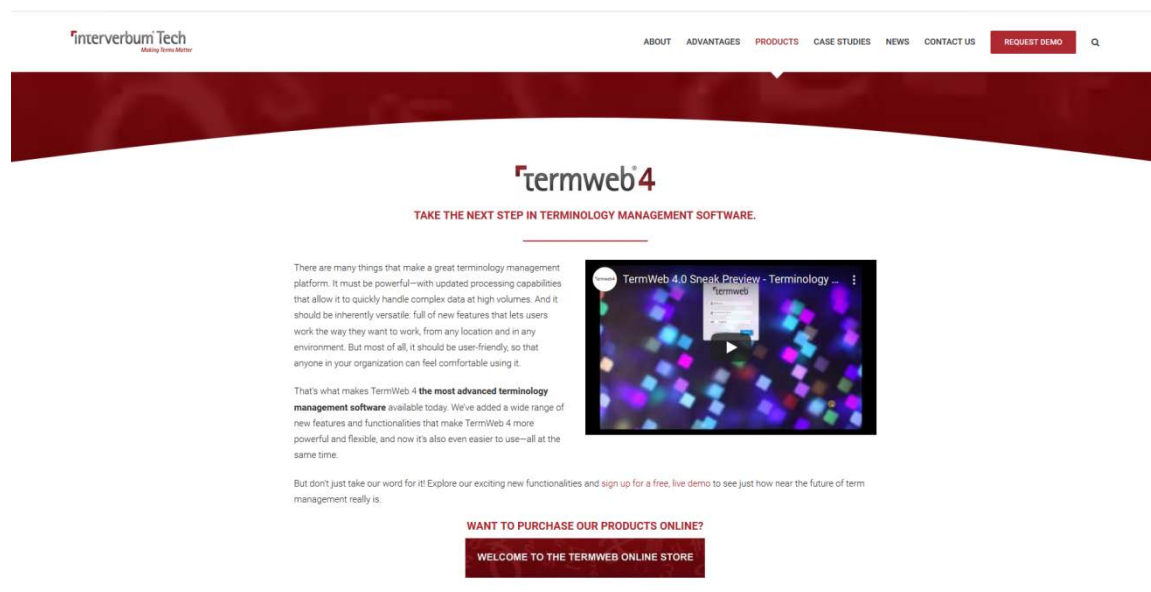


Fig. 12 – TermWeb website

You are in complete control of your termbase without sacrificing productivity or user experience. Robust administrative options let you design an experience that fits your users perfectly.

- TermWeb's search function offers tab-viewing—just like most modern web browsers—for a more familiar, intuitive experience
- Edit large quantities of data quickly through a grid structure that functions exactly like a spreadsheet
- Design, assign and edit user-specific interfaces, search filters, workflows and read/write permissions
- Preview entries before adding new terms to dictionary, view a term's entire edit history and trace dictionary changes by user—and even recover and revert to earlier versions of your database

b) evoTerm:

<http://www.evoterm.net>

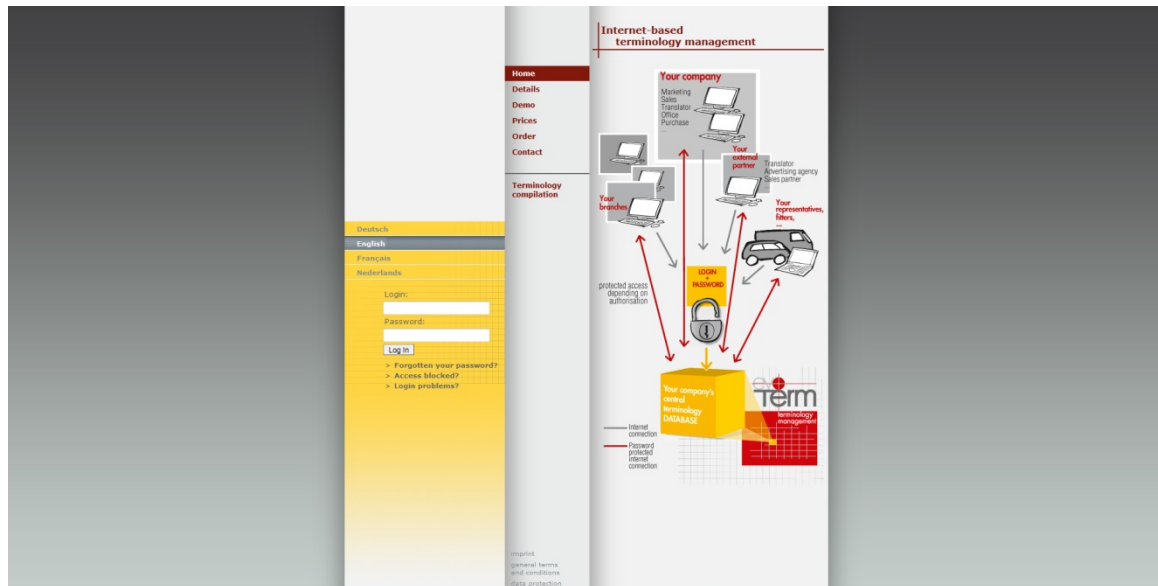


Fig. 13 – evoTerm website

Centrally-stored terminology:

- Terminology is stored on an Internet server that is optimally set up for secure storage and fast data retrieval.

- Terminology available via Internet

Everyone who is allowed to access the terminology requires exclusively Internet access and a standard browser. The terminology can hence be retrieved worldwide.

- Automatic data backup; import and export functions

The data is backed up automatically on a daily basis, taking into account high

security criteria. Naturally additional functions for manual data backup and restore are available to the administrator. You can import or export your data in different formats.

c) **TermBases.eu:**

<https://www.termbases.eu>

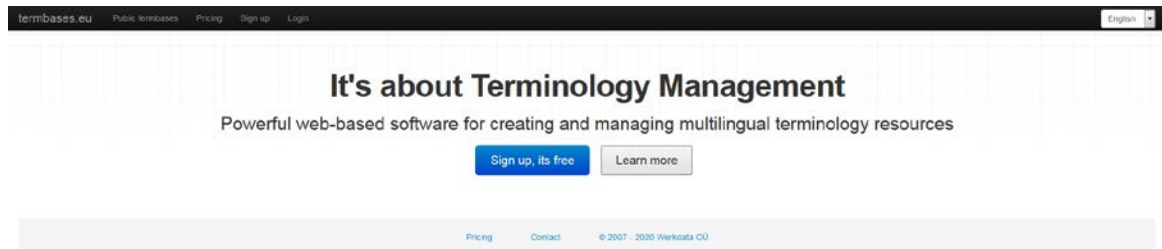


Fig. 14 – TermBases website

	Personal
Termbases	3
Users	1
Terms	3000
Import TBX, XLIFF, CSV	✓
Export TBX, CSV, XLS, HTML	✓
Configure concept and term attributes	✓
Concept comments	✓
Concept and Term comments	✓
Bookmark concepts	✓
Concept relations	✓
Term relations	✓
Termbase detailed access configuration	
Concept history	
Term history	
2 level deleting	
Lock concept	
Seperate domain	
Domain settings, logs, sessions	
SOAP integration API	
	Free

Fig. 15 – TermBases free offer

d) **TermWikiPro:**

<https://pro.termwiki.com>

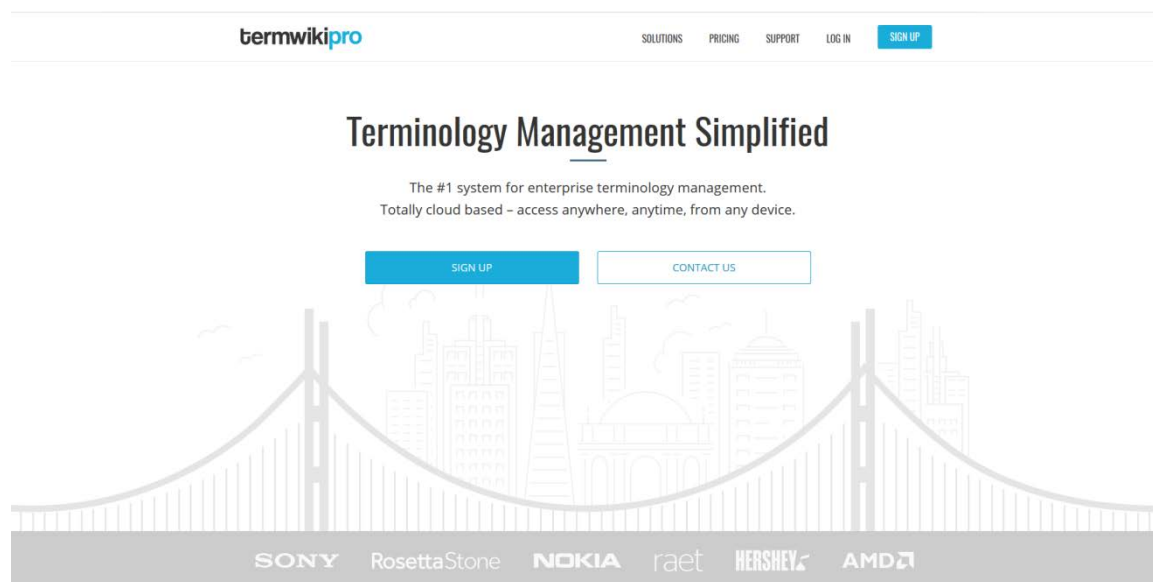


Fig. 16 – TermWikiPro website

TermWiki Pro (TWP) is an online platform providing a suite of enterprise terminology management solutions for global businesses. As a cloud-based service, there is no 3rd party software installation or service interruptions due to maintenance and support. All you need to do is sign up for a TWP account to get started immediately with your terminology management practice.

Populate Terms

There are several ways to create terms in TWP. You can add terms manually or import them from Excel or TBX files. If you prefer, our terminologists can help you create the initial termbase by automatically extracting terms from your content and then defining them for your review and approval. You can also add attributes such as usage status, screenshots, and other references.

Translate Terms

TWP has a built-in translation workbench so you can invite linguists to translate your terms directly in your TWP account. Translating in TermWiki Pro will allow all content edits to be automatically saved so you can track change history at all times. If you lack translation resources, our experienced linguists can help you translate your terms.

Look-up Terms

Once your terms have been reviewed and approved in TWP, you can use them in your authoring and translation work to ensure terminology accuracy and consistency in both source and translated content. You can use our API to connect your authoring tools and TMS (translation management system) as well as export content into an exchange file like Excel.

e) qTerm:

<https://www.memoq.com/en/qterm-professional-terminology-management>

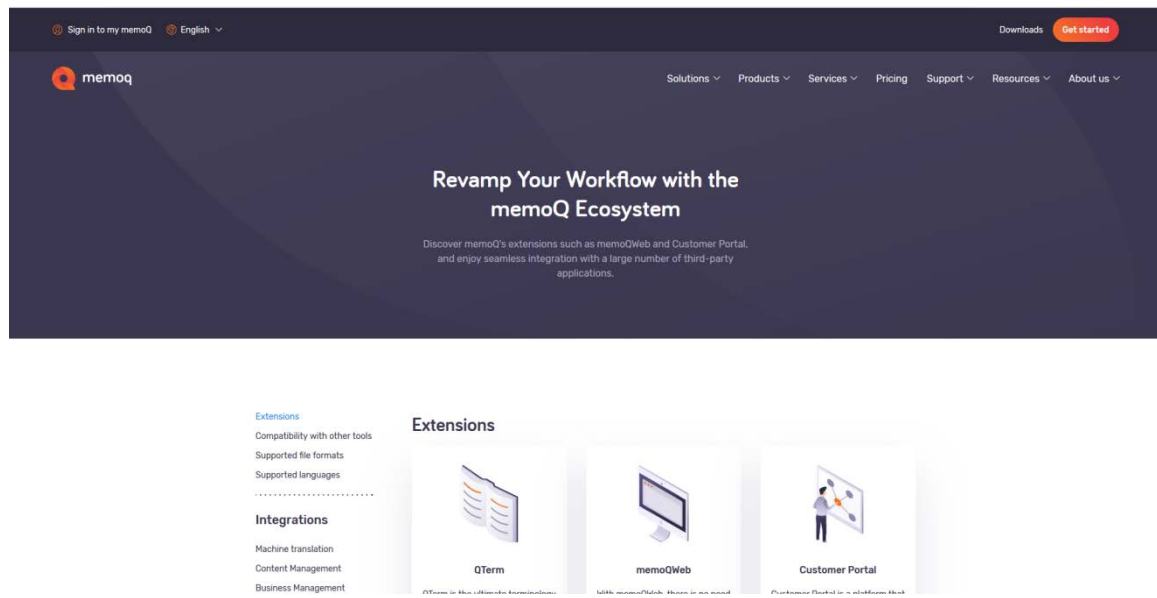


Fig. 17 – memoq website for qTerm

Key features in QTerm

- **Flexible term base structure:** in QTerm, every term base can have a different structure specific to your organization and goals with custom-defined fields on the concept, index and term levels. A user-defined term field can contain text, a number, true/false, date, media, single-value picklist or multiple-value picklist.
- **Discussions:** this feature provides an easy way for users to comment on terminology, address terminologists with questions, or request new terms to be added to the term base. Dashboards and integrated email notifications help you keep focus. Discussion gives QTerm a collaborative dimension unparalleled by other terminology solutions.

- **Search in multiple term bases:** users can search through all QTerm term bases for a term with just one search.
- **Custom filters:** Filters can help you see only terms that comply with your filtering criteria. You can easily filter for old entries, entries that are missing one or more target terms, expressions relevant to certain products, terms that have not yet been approved, and more. These filters can be saved and shared with others.
- **Graphics, video, audio or other media in descriptive fields:** You can upload media files or reference documents to each entry. These are then shown or played in the default viewer.
- **Fully integrated with memoQ:** Translators using memoQ can connect to a QTerm term base from within the memoQ desktop client and receive matches when a term is found in the source text. memoQ's automatic quality assurance functions also work with QTerm term bases.
- **Integration with memoQ WebTrans:** QTerm integrates with memoQ's browser-based translation interface, memoQ WebTrans, offering terminology lookup results and allowing users to store new terms on the fly.
- **Guest access:** You can define a guest user that can access designated term bases without the need to enter a user name and password for login. This is a great way of sharing terminology with customers.
- **Permissions management:** You can define which users and groups have lookup, update or administrator privilege for individual term bases.
- **Intuitive user interface:** QTerm's user interface supports hotkeys, dynamically updates the screen if the content changes, and gives a desktop-like editing experience.

4.4 Term extraction

The most useful termbases are those that contain the highest number of entries, especially when they are properly managed. The more verified terms are in a termbase, the higher the chance that the termbase will be able to provide a solution during the process of translation.

However, building a sufficiently large termbase can take a long time because entering terms manually is time-consuming. One way to create term collections in a more streamlined fashion is **term extraction**: a data-mining method through which termbases can be populated with the help of computer technology.

The idea behind term extraction is based on the fact that in all specialist fields and professions there are vast amounts of text available electronically; these are literally loaded with terms. If a computer program – a **term extractor** – was taught to analyse text, identify terms and put them on a list, the process of building terminology banks could be automated.

This is a challenging task, to say the least. In fact, software tools for recognizing terms (which can be quite complex and often carry grammatical and morphological inflections) are still not reliable enough to allow full automation.

There are three main term extraction approaches that term extractors apply in order to tackle the task:

- **Linguistic**: the term extractor attempts to identify word combinations that match certain morphological or syntactic patterns (“adjective + noun”, “noun + noun”, etc.). This will of course detect many combinations that are actually not terms, so the candidates are filtered using various pattern-matching techniques. The linguistic approach is heavily language-dependent because term-formation patterns differ from language to language. Therefore, term extraction tools using a linguistic approach are generally designed to work in a single language (or closely related languages), and cannot easily be extended to work with other languages.

- **Statistical:** the term extractor looks for repeated sequences of lexical items; this is because terms are key words that often reoccur in the text. The frequency threshold (which refers to the number of times that a word or a sequence of words must be repeated to be considered a candidate term) can typically be specified by the user. The major strength of the statistical approach is that it is language-independent.

- **Hybrid:** this represents a combination of the two methods above, and is the most common approach used in term extraction today. The term extractor is primarily statistical but rules and filters are incorporated to allow picking candidate terms that have certain linguistic features.

Term extraction can be approached with two different goals in mind. In **monolingual** extraction the program analyses a text in a particular language, identifies potential terms, and produces a word list that can serve as a basis for a termbase (translations of the terms in the list will have to be provided). In **bilingual** term extraction the program analyses a source text together with its translation, identifies candidate terms in the source text, and tries to match them with their equivalents found in the translation. The result is a ready termbase containing terms in two languages.

However, as term extractors are still not sophisticated enough to perform either of the tasks with 100% reliability and consistency, the results of both monolingual and bilingual term extraction must always be verified by a human terminologist or translator. Therefore, we can speak of term extraction as a computer-aided rather than a fully automated process.

4.4.1 TERM EXTRACTION TOOLS

The table below lists a few term extractors that are available either as free or commercial software:

Program name	Type	Comments
<u>TermoStat Web</u>	free	Web-based; free but requires registration. Supports monolingual extraction only.
<u>SDL MultiTerm Extract</u>	commercial	Comes as an auxiliary tool to complement SDL MultiTerm (see 4.3.1 above). Supports both monolingual and bilingual extraction.
<u>FiveFilters</u>	free	Web-based; supports monolingual extraction only.
<u>SynchroTerm</u>	commercial	Supports both monolingual and bilingual extraction.
<u>VocabGrabber</u>	free	Web-based; free but exporting the extracted wordlist requires registration. Supports monolingual extraction only.

a) TermoStat Web

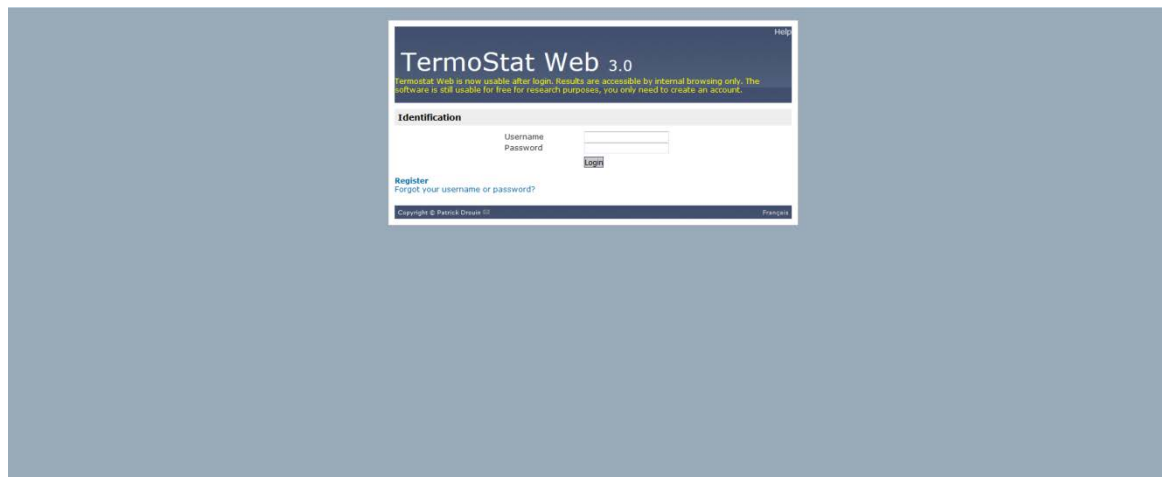


Fig. 18 - TermoStat Web

The drawback seems to be the help page that is only in French

termostat.ling.umontreal.ca/doc_termostat/doc_termostat_en.html

Guide de l'utilisateur
Termostat 3.0
Patrick Drouin
Observatoire de linguistique Sens-Texte
Université de Montréal

Dernière mise à jour : décembre 2010

Présentation du logiciel
Auteur
Principe
Fonctionnement
Citation au sein d'articles

Identification
Ouverture
Inscription
Gestion du compte
Déconnexion

Corpus
Analyse de corpus
Gestion de corpus

Résultats
Liste des termes
- Contexte
Nuage
Statistiques
Structuration
- Décomposition
- Graphe
Bigrammes

Présentation du logiciel
Auteur
Patrick Drouin
Professeur agrégé
Observatoire de linguistique Sens-Texte
Département de linguistique et de traduction
Pavillon Lionel-Groulx, local C-9120
Université de Montréal
C.P. 6128, succ. Centre-ville
Montréal (Québec) H3C 3J7
Canada
Tél. : 1+ (514) 343-7174
Télec. 1+ (514) 343-2284
✉ patrick.drouin@umontreal.ca

Principe
Termostat est un outil d'acquisition automatique de termes qui exploite une méthode de mise en opposition de corpus spécialisés et non-spécialisés en vue de l'identification des termes. La version disponible en ligne de Termostat prend en charge le français, l'anglais, l'espagnol, l'italien et le portugais.
Termostat reçoit un texte en entrée et retourne comme résultat principal une liste de candidats termes (CT) tirés du texte.
Un terme peut être simple (un mot) ou complexe (une suite de mots).
Chaque terme reçoit un score basé sur la fréquence du terme dans le corpus analysé, le corpus d'analyse (CA), et sa fréquence dans un autre corpus prétraité, un corpus de référence (CR).
Le corpus de référence français est d'environ 28 500 000 occurrences, qui correspondent à approximativement 560 000 formes différentes. C'est un corpus non technique composé d'articles de journaux portant sur des sujets variés tirés du quotidien français *Le Monde* et publiés en 2002.
Le corpus de référence anglais est d'environ 8 000 000 occurrences, qui correspondent approximativement à 465 000 formes différentes. C'est un corpus non technique dont la moitié provient d'articles de journaux portant sur des sujets variés tirés du quotidien montréalais *The Gazette* et publiés entre mars 1989 et mai 1989. L'autre moitié du corpus de référence anglais provient du British National Corpus (BNC).
Le corpus de référence espagnol est d'environ 30 000 000 occurrences, qui correspondent approximativement à 527 000 formes différentes. C'est un corpus non technique qui provient de l'Assemblée parlementaire européenne.

Fig. 19 - TermoStat help page in French

b) SDL MultiTerm Extract

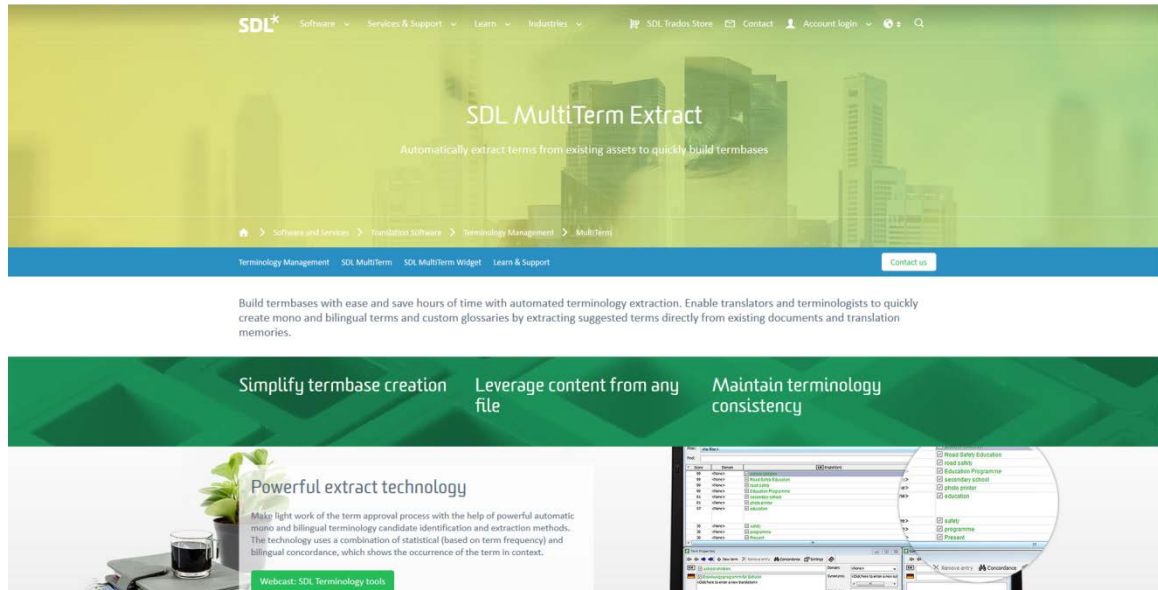


Fig. 20 - SDL MultiTerm Extract page

Multi Term Extract is a powerful tool from the SDL family. It requires seminars taught by their resellers or signing up for their tutorials. Not very cost effective.

c) FiveFilters

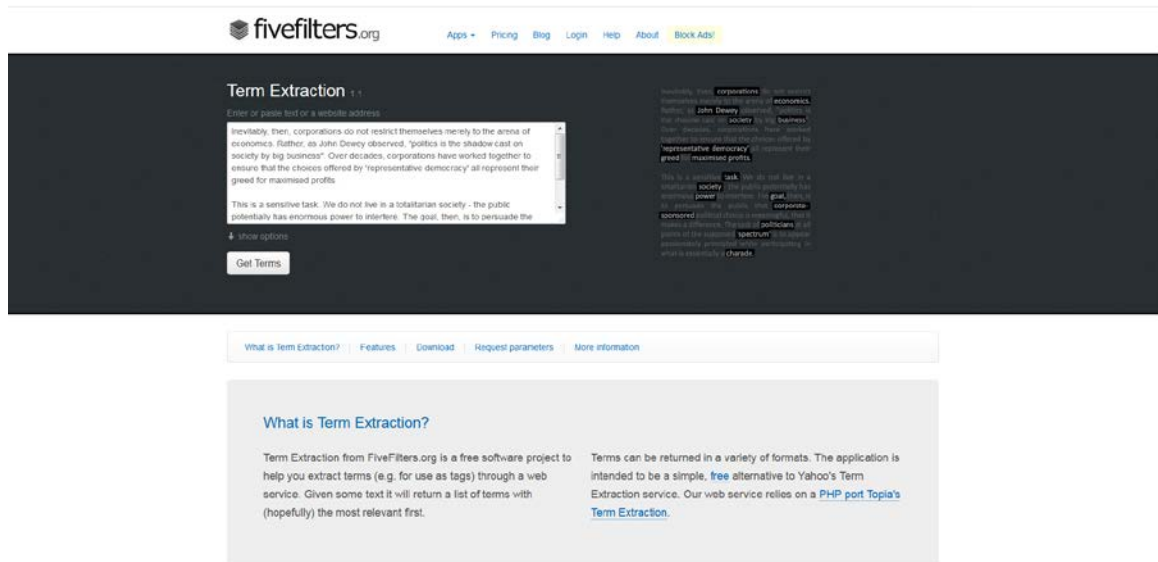


Fig. 21 - FiveFilters web page

Term Extraction from FiveFilters.org is a free software project to help you extract terms (e.g. for use as tags) through a web service. Given some text it will return a list of terms with (hopefully) the most relevant first.

Here are a few details the author finds interesting. This also helps you to get an idea what is involved in the process:

General parameters

When making HTTP requests, you can pass the following parameters (either in a GET request or POST request).

Parameter	Value	Description
text	string	The text to extract terms from (UTF-8 encoded). English is the only supported language.
output	<i>json, xml, txt, php, html</i>	The format to return the terms.
terms_only	1 or 0 (default)	Set this to 1 if you're only interested in the terms (not the occurrence and term word count). Only applies to JSON output.
max	number (default 50)	The maximum number of terms to return.
lowercase	1 or 0 (default)	Set this to 1 to have all extracted terms converted to lowercase
callback	string	For JSONP: name of your Javascript function to receive the JSON response. If JSON has not been requested, this has no effect The following characters are allowed: A-Z a-z 0-9 . [] and _.
url	string	This can be used instead of 'text' or 'text_or_url', to point to a web article.
text_or_url	string	For convenience, this parameter can be used instead of the 'text' or 'url' parameters to accept either a URL (on its own) or some text.
key	string	Access key. If you've set one up in custom_config.php, otherwise not required.

Required parameters: either `text`, `url`, or `text_or_url` must be supplied.

Filtering

The parameters below can be used to filter out certain terms

Parameter	Value	Description
min_occurrence	number (default 1)	The minimum number of times a single-word (unigram) term must appear for it be included in the output.
max_strength	number (default 3)	Strength is the number of words in the term, so to reduce results to terms with a maximum of 2 words, set this to 2.
keep_if_strength	number (default 2)	Keep a term if the term's word count is equal to or greater than this, regardless of occurrence.
exc[]	string	Check terms for this string, and exclude term if there's a match or partial match. This can appear multiple times.
filter	1 (default) or 0	Set this to 0 to disable filtering (overriding the four parameters above).

d) Synchro Term

The screenshot shows the SynchroTerm website. At the top, the 'TERMINOTIX' logo is centered, with navigation links for 'Contact', 'Shopping Cart', 'Français', and social media icons. A dark sidebar on the left contains a menu with categories like 'Products', 'Support Renewal', 'Training', and 'Services'. The main content area is titled 'SYNCHROTERM Bilingual term extraction software' and features three buttons: 'Trial Version', 'For students', and 'To buy'. Below the buttons, there are links for 'PDE Version' and 'Video Tutorials'. The text describes the software's function: 'SynchroTerm accelerates the process of extracting terminology and creating term records by employing statistical algorithms to automatically identify equivalent terms. It automatically extracts source terms, their equivalents and their contexts from file pairs in any format, LogiTerm bitexts, SDLXLIFF, XLIFF or TMX files.' It also lists supported languages: English, French, Spanish, Italian, Portuguese, Polish, Haitian Creole, Slovak, Czech, German, Swedish, Russian, Greek, Dutch, Hungarian, Norwegian, Turkish, Danish, Bulgarian, Finnish, Romanian, Lithuanian, Slovene, Arabic, Chinese, Latvian, Croatian, Estonian, Gaelic and Maltese. Further down, it mentions exporting records to various formats and pre-filling fields when creating records.

Fig. 22 - Synchro Term web page

SynchroTerm accelerates the process of extracting terminology and creating term records by employing statistical algorithms to automatically identify equivalent terms. It

automatically extracts source terms, their equivalents and their contexts from file pairs in any format, LogiTerm bitexts, SDLXLIFF, XLIFF or TMX files.

A number of extraction and record creation settings are available to optimize results: minimum number of words per term, maximum number of words per term, number of occurrences, substantive-only extraction option, LogiTerm term base cross-referencing function and much more.

SynchroTerm is compatible with 30 languages: English, French, Spanish, Italian, Portuguese, Polish, Haitian Creole, Slovak, Czech, German, Swedish, Russian, Greek, Dutch, Hungarian, Norwegian, Turkish, Danish, Bulgarian, Finnish, Romanian, Lithuanian, Slovene, Arabic, Chinese, Latvian, Croatian, Estonian, Gaelic and Maltese.

You can export your records in one of eight available formats, then import them into your chosen terminology software tool.

When creating records, you can automatically pre-fill up to 11 fields with predefined values, rather than re-entering the same information in each record.

The software's Restrictive Terminology option allows you to upload a list of source terms so that SynchroTerm extracts only these terms from your document corpus.

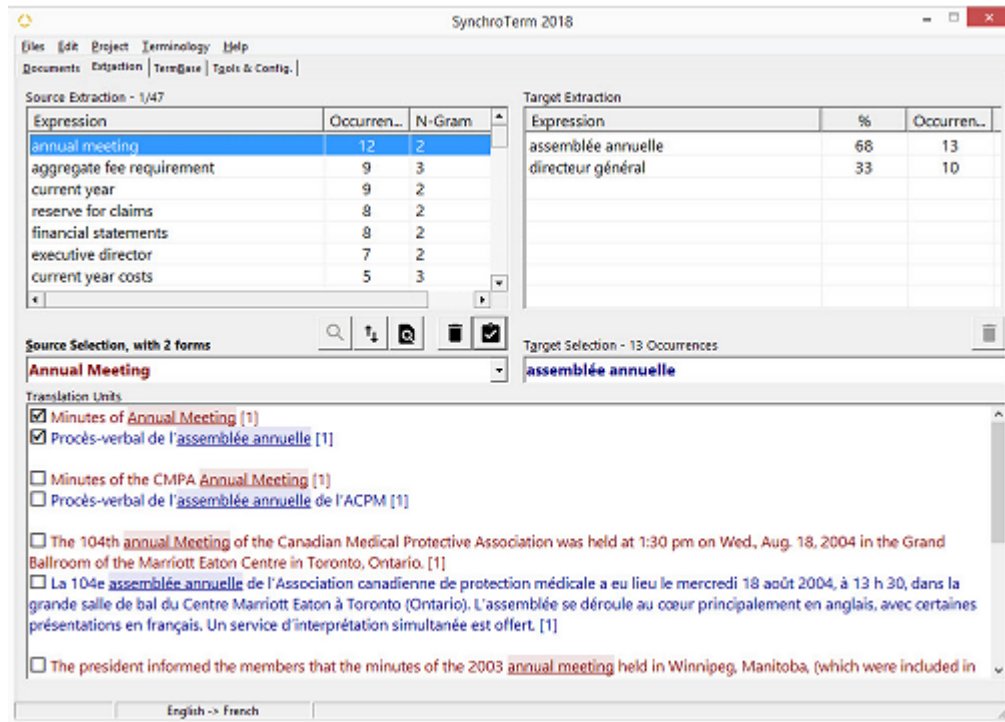


Fig. 23 - Synchro Term extraction interface

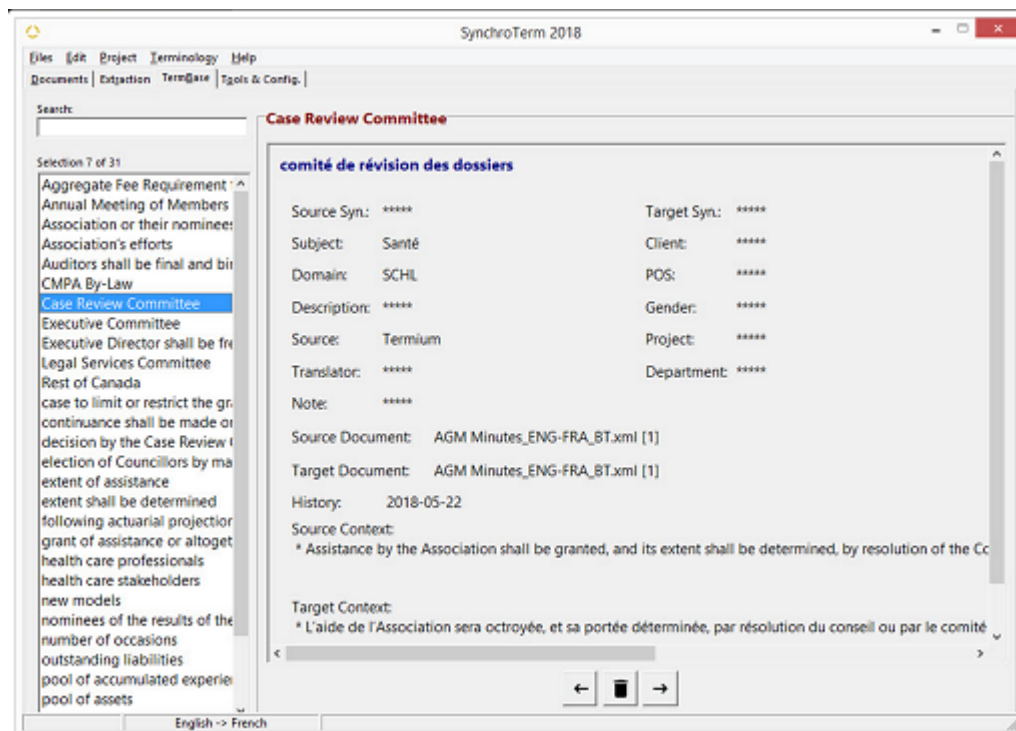


Fig. 24 - Synchro Term terminology records

e) Vocab Grabber

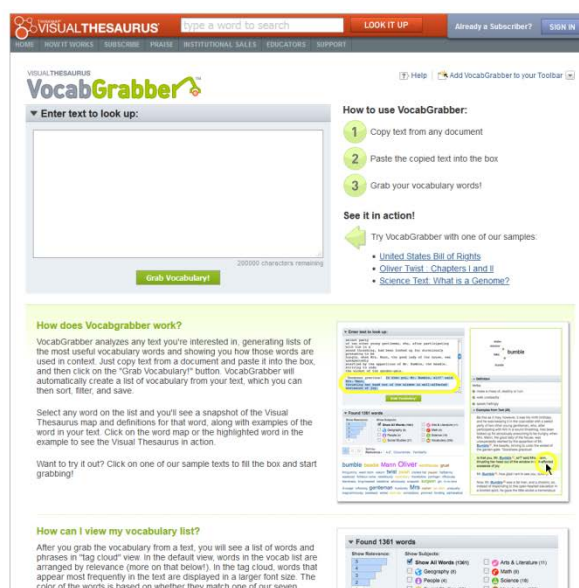


Figure 25. – Vocab Grabber web site

VocabGrabber analyzes any text you're interested in, generating lists of the most useful vocabulary words and showing you how those words are used in context. Just copy text from a document and paste it into the box, and then click on the "Grab Vocabulary!" button. VocabGrabber will automatically create a list of vocabulary from your text, which you can then sort, filter, and save.

Select any word on the list and you'll see a snapshot of the Visual Thesaurus map and definitions for that word, along with examples of the word in your text. Click on the word map or the highlighted word in the example to see the Visual Thesaurus in action.

After you grab the vocabulary from a text, you will see a list of words and phrases in "tag cloud" view. In the default view, words in the vocab list are arranged by relevance (more on that below!). In the tag cloud, words that appear most frequently in the text are displayed in a larger font size. The color of the words is based on whether they match one of our seven subject areas (Arts & Literature, Geography, Math, People, Science, Social Studies, Vocabulary).

You can also choose "list" view, which will give you the vocab list in a table, with columns displaying each word's subject areas, relevance score, and number of occurrences in the text. Or you can select "gallery" view, displaying a thumbnail image of each word's map in the Visual Thesaurus.

SUMMARY



This chapter dealt with terminology management. It described processes needed to create collections of terms that lead to creating databases. It also dealt with practical applications of this process. Several tools for efficient terminology management were introduced, described and term extraction as a way to streamline the creation was discussed.



COMPREHENSION CHECK

1. What benefits does terminology management bring to translation practice?

2. What functions does translation software provide with regard to terminology and the use of *termbases*?

3. Explain how *term extraction* works, and why a translator might want to use a *term extractor*.

ASSIGNMENT



Use the link to locate the [FiveFilters term extraction tool](#). Once there, click on the “show options” link and change the Output value to TEXT.

Find a text on the Internet that potentially contains terms. Copy and paste it into the text field on the term extractor page, and click on the “Get Terms” button. The extractor will produce and display a plain-text list of candidate terms.

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SHRNUTÍ STUDIJNÍ OPORY

Studijní opora Úvod do odborné terminologie předkládá studentům základy práce s odbornou terminologií, učí je způsobům vytváření databází odborných termínů a v neposlední řadě seznamuje studenty s nejčastěji používaným software na trhu a analyzuje jejich používání v praxi.

Věřím, že absolventi kurzu si distanční formou osvojí jednak terminologii, jakožto i způsoby a nástroje pro práci s odbornou terminologií.

Hodně zdaru přeje autor.

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	Klíčová slova		Nezapomeňte na odpočinek
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	Tutoriály		Definice
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	Kontrolní otázka		Korespondenční úkol
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Autor: **PhDr. René Kron PhD.**

Vydavatel: Slezská univerzita v Opavě
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